TOSHIBA

FILE NO. 030-200419
REVISED.1

SERVICE MANUAL

Projection Television

46WM48P

Published in Japan, Dec. 2004 (YC)

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CIRCUIT DIAGRAM

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When the replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs,insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

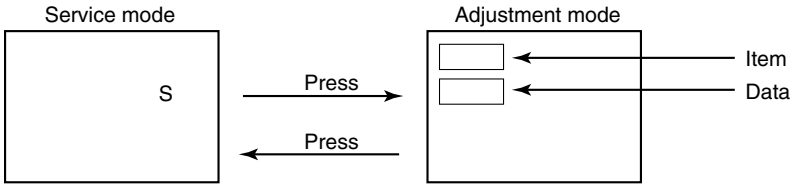
2) Press 🔇 button again to keep pressing.

3) While pressing the 🔇 button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Test signal selection :	⊕ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to “00”:	CALL + Channel button on TV (▼)
“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
Self diagnostic display ON/OFF :	9 button

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 27)

5. ADJUSTING THE DATA

1) Pressing of VOLUME +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ **INITIALIZATION OF MEMORY DATA OF QA02**

After replacing QA02, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto tune” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

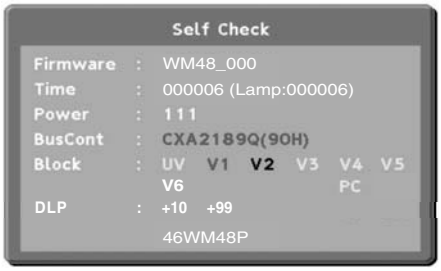
1) Every pressing of ⊕ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

Signal off ⟷ ALL Red ⟷ ALL Green ⟷ ALL Blue ⟷ ALL Black ⟷ ALL White ⟷

Signals	Picture
• All White • All Red • All Green • All Blue • All Black	

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



① Firmware:
Version information of microprocessor
In case of file name : WM48 and Version : 1.00 indicates[WM48_100].

② Time: Total hour of turn the TV on. (Unit : H) ▪ Total hour of Lamp lights. (Unit : H)

③ Power : Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apt to flow, and circuit parts may possibly be damaged.

④ BusCont : --- "OK" is normal.
When type name of semiconductor indicates.

⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→ 1)
V2 : VIDEO 2 input mode (→ 2)
V3 : VIDEO 3 input mode (→ 3)
V4 : VIDEO 4 input mode (→ 4)
V5 : VIDEO 5 input mode (→ 5)
V6 : HDMI input mode (HDMI)
PC : PC input mode (PC)

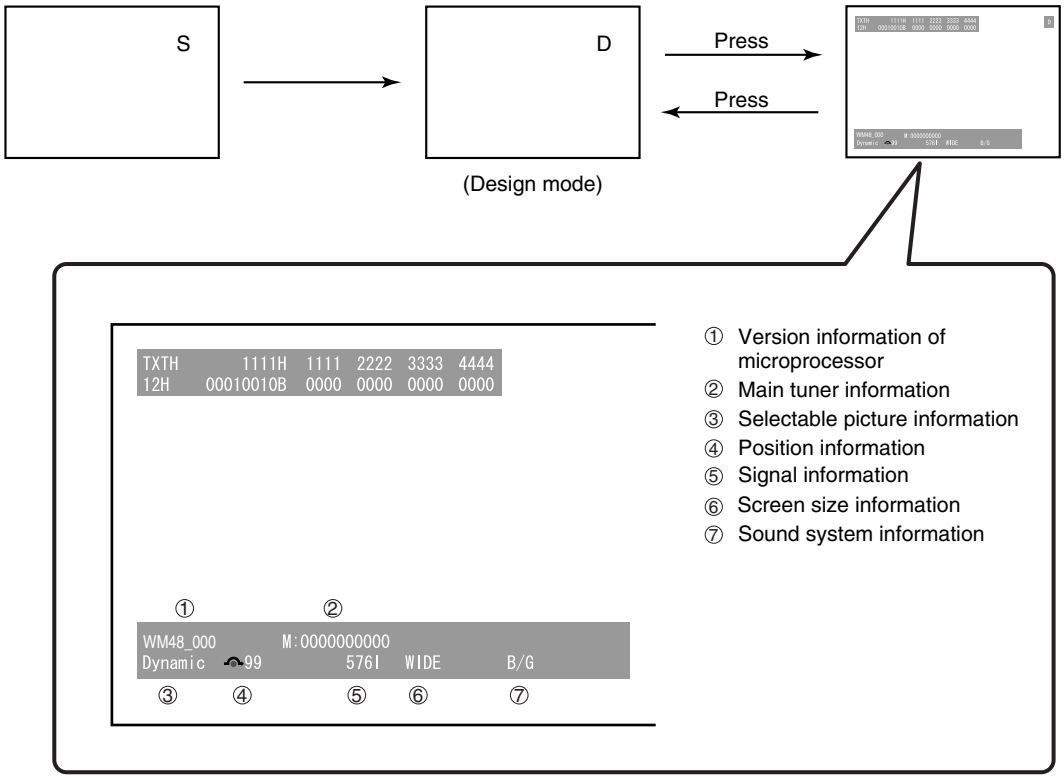
⑥ Temperature indication
+10 indicates temperature nearby the lamp unit
+99 indicates temperature nearby the light engine

⑦ Model name (7 digit)

DESIGN MODE

1. ENTERING TO DESIGN MODE

1) Select the Service mode. 2) While pressing CALL button on Remote and press MENU button on TV. 3) The following displays are shown on the screen



2. SELECTING THE ADJUSTING ITEMS

Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3. (▲ button for reverse order)

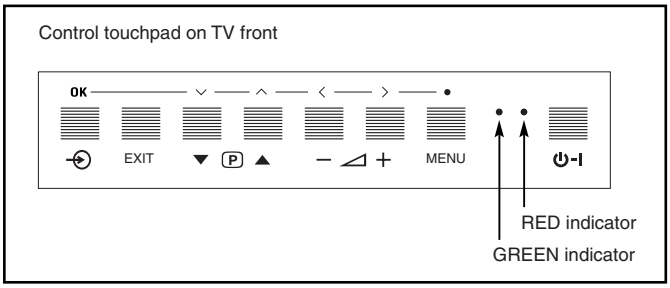
3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.

4. LED indications

The green and red LED lights on the TV control touchpad (on the lower right Corner of the TV screen) indicate the TV's current status, as follows:

- Red ON (solid) and Green OFF = TV power cord is plugged in (the TV is ON or OFF).
- Green ON (solid) and Red OFF = The On timer is operating.
- Green and Red ON (solid) = TV front touchpad is being pressed.
- Green flashing (see table below for condition).



Priority	Problem	Green LED Operation
2	Abnormal operation (FAN stopped)	500ms ON, 500ms OFF
3	BUS line has failed. (IIC BUS error)	1sec ON, 1sec OFF
7	Lamp LPS (Low Power Standby) mode	(200ms ON · 200ms OFF)x1 Time, 1sec OFF
8	The lamp lights again.	(200ms ON · 200ms OFF)x2 Times, 1sec OFF
1	The lamp unit door is not closed properly.	(200ms ON · 200ms OFF)x3 Times, 1sec OFF
6	The lamp is not lightning properly.	(200ms ON · 200ms OFF)x4 Times, 1sec OFF
5	The color wheel has stopped, DMD bus error	(200ms ON · 200ms OFF)x5 Times, 1sec OFF
4	Temperature increases abnormally.	(200ms ON · 200ms OFF)x6 Times, 1sec OFF
Lowest	On timer set	ON

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【SERVICE MODE】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

	Item	Name of adjustment	Preset Deta	46WM48P
	RCUT	R CUT OFF	60H	←
	GCUT	G CUTOFF	60H	←
	BCUT	B CUT OFF	60H	←
	RDRV	R DRIVE	55H	←
	GDRV	G DRIVE	48H	←
	BDRV	B DRIVE	4BH	←
	HPOS	H.POSITION (PAL/WIDE)	00H	←
	VPOS	V.POSITION (PAL/WIDE)	00H	←
	CWDH	COLOR WHEEL DELAY (HIGH)	00H	←
	CWDL	COLOR WHEEL DELAY (LOW)	FAH	←
	DMDB	DMD BIAS	03H	←
	OPT0	TV SET OPTION 0	8CH	←
※	OPT1	TV SET OPTION 1	00H	←
	HOTE1	HOTEL MODE OPTION 1	00H	←
	HOTE2	HOTEL MODE OPTION 2	00H	←
	UOLX		75H	←

※ OPT1 should be set to "20H" for UK shipment model.

Table-1

Note:

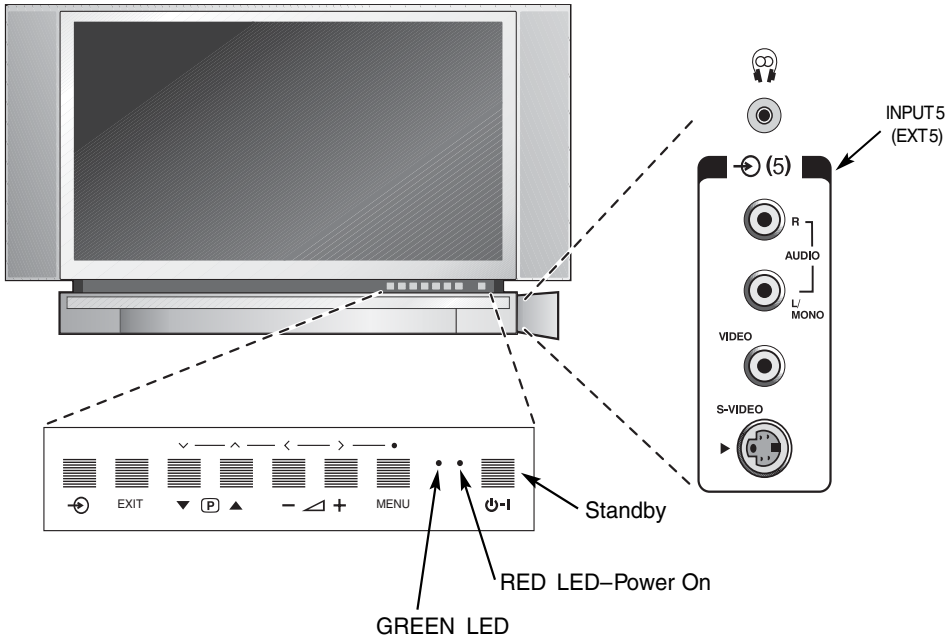
The image system data of RCUT-BDRV is different by each image format.

The PAL value is indicated in the table.

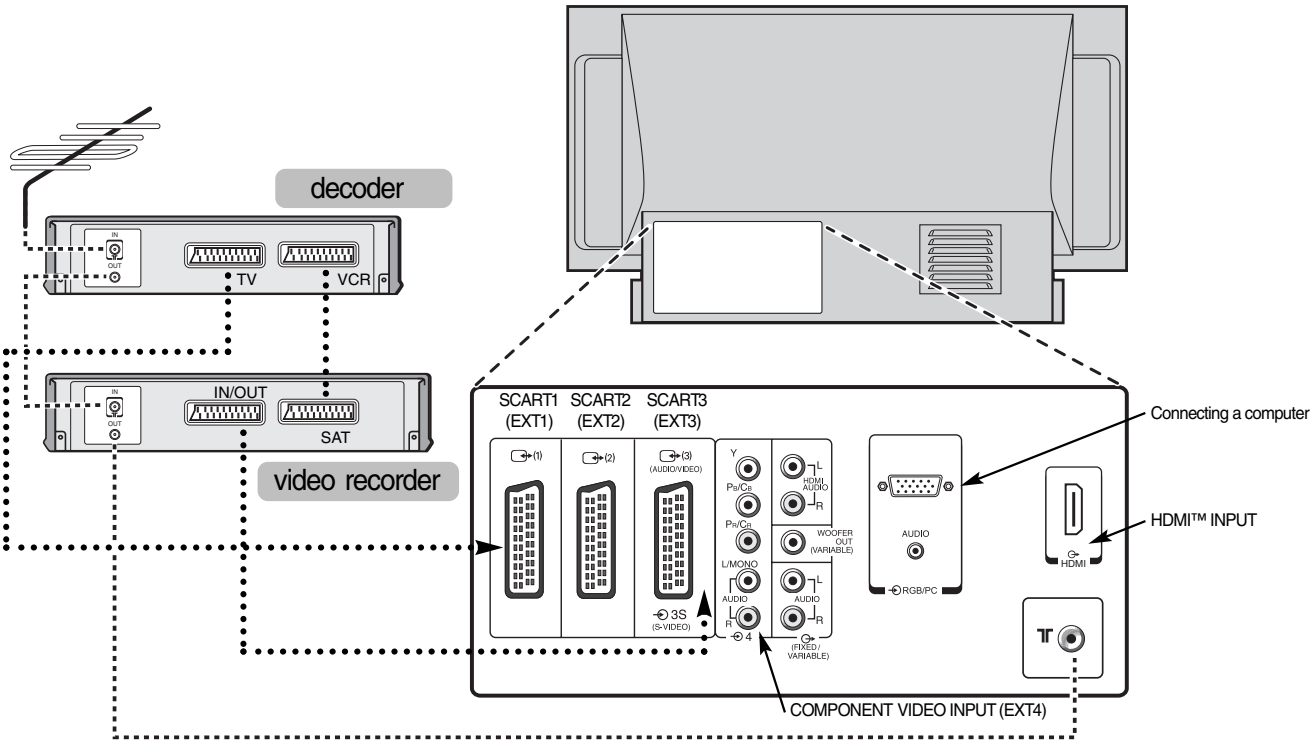
Never adjust H.POS and V.POS except PAL/WIDE mode.

LOCATION OF CONTROLS

Front



Back



Remote Control

Simple at-a-glance reference of your remote control.

To display teletext

To bring up on-screen information and for the teletext initial/index function

For On/Standby mode

Number buttons

To select input from external sources
To access sub-pages when in teletext mode

To return to the previous programme

Selectable picture preferences

Widescreen viewing

On-screen Menus

To exit Menus

To change programme positions and teletext pages
To alter the volume
When using menus the arrows move the cursor on the screen up, down, left or right. **OK** *to confirm your selection*

Teletext control buttons

Stereo/Bilingual reception

Bass Boost/Super Woofer

To select mode

To mute the sound

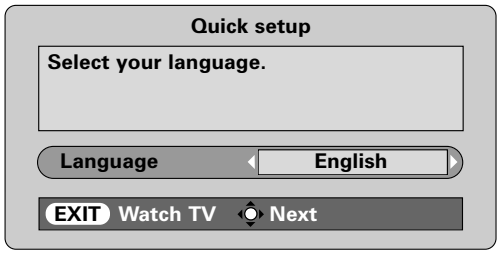
When using a TOSHIBA VCR or DVD:
press ⏸ to PAUSE
press ⏏ to EJECT
press ⏮ to SKIP-REWIND
press ⏭ to SKIP-FORWARD
press ▶ to PLAY
press ■ to STOP
press ◀◀ to REWIND
press ▶▶ to FAST FORWARD

When in TV mode:
Time display
When in Teletext mode:
To reveal concealed text
To hold a wanted page
To enlarge teletext display size
To select a page whilst viewing a normal picture

Tuning the television using Quick setup, Programme sorting

Before switching on the television put your decoder and video recorder (VCR) to **Standby** if they are connected. To set up the television use the buttons on the remote control as detailed on page11.

1 Connect the television to the mains power. The **Quick setup** screen will appear.



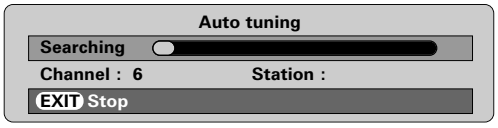
2 Using ❮ or ❯ select your **Language**, then press **OK**.

3 Then press ❮ or ❯ to select your **Country** and press **OK**.

4 Your **System** will have been selected, if there is a choice, press ❯ to select from the systems displayed.

B/G – Continental Europe, **I** – UK
D/K – Eastern Europe, **L1**, **L2** – France

5 To start **Auto tuning** press **OK**.



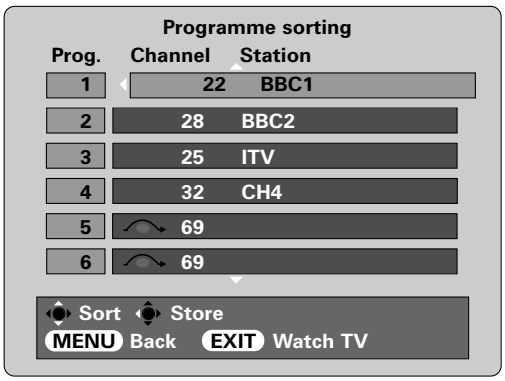
6 The search will begin for all available stations. The slide bar will move along the line as the search progresses.

You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1. This may not be a clear picture or the signal may be weak, so the station order can be changed using **Programme sorting** which will appear on the screen.

7 With the list of stations now showing use ❯ or ❮ to highlight the station you want to *move* and press ❯.

The selected station will be moved to the right of the screen.



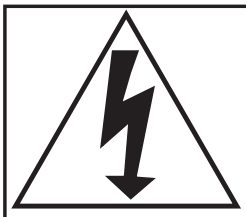
8 Use ❯ or ❮ to move through the list to your *preferred* position. As you do so the other stations will move to make room.

9 Press ❮ to store your move.

Repeat as necessary, then press **EXIT**.

If the television cannot be connected to a VCR/decoder with a SCART lead or if a station on another ***system*** is required, use **Manual tuning** to allocate a programme position.

WARNING



THE VOLTAGE INSIDE THIS PRODUCT MAY BE STRONG ENOUGH TO CAUSE AN ELECTRIC SHOCK

To reduce the risk of injury from electric shock never open or remove any of the television covers other than the Lamp Unit door. All other servicing should be carried out by qualified service personnel.

DO NOT TRY TO SERVICE THIS PRODUCT YOURSELF.

LAMP UNIT REPLACEMENT

The lamp has a limited service life which depends on the the amount of use and the settings used, so it has been designed for safe replacement by the consumer. The brightness of the lamp will vary during use and over time will gradually decrease. The strength of the quartz glass in the lamp will also reduce, this may cause the lamp to rupture, creating a loud noise and stopping the operation of the television. The lamp unit is designed so that the broken glass remains inside the replaceable unit. The lamp has reached the end of its service life when a reduction in colour and/or brightness is noticed or if the lamp ruptures.

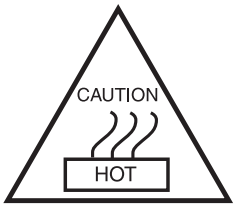
CAUTION: Always handle the lamp unit with care, keep away from children and pets. The unit has been designed so that the consumer can replace it but any misuse could result in the unit breaking exposing sharp edges and pinch points.

IMPORTANT SAFETY INSTRUCTIONS...

NEVER look directly at the lamp when lit as eye damage could result.

ALWAYS turn off the television by unplugging the mains lead before opening the lamp unit door.

The temperature of the lamp immediately after use exceeds 392°F/200°C. Allow the lamp to cool for at least 1 hour before replacing it, touching it before it has cooled will result in severe burns.



When replacing the lamp unit ALWAYS wear gloves to reduce the risk of burns.

The lamp unit door is provided with an interlock to reduce the risk of electric shock and excessive ultraviolet radiation. DO NOT attempt to replace the lamp unit without removing the lamp unit door completely, failure to do so could result in serious injury or death.

If the lamp unit glass is accidently touched or gets dirt on it, it can be gently wiped clean with a lint-free cleaning cloth such as a camera lens cloth or spectacles cloth.

NEVER clean the lamp with any type of flammable or aerosol cleaning liquid. Most household cleaning agents contain chemicals that are flammable at high temperatures.

To obtain a replacement lamp please contact your local Toshiba authorized dealer.

DISPOSAL...

The lamp in this television contains mercury, when the lamp unit and the television reaches the end of its useful life please dispose of it in accordance with Local Government Regulations or at a recycling centre.

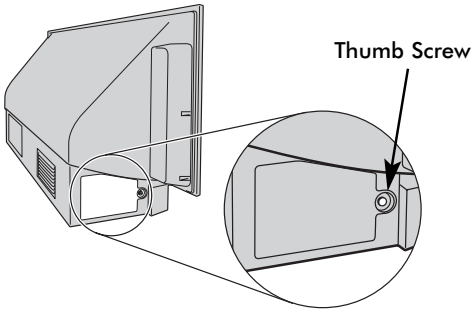
Replacing the Lamp unit

1 Turn off the television and remove the mains plug from the wall socket.

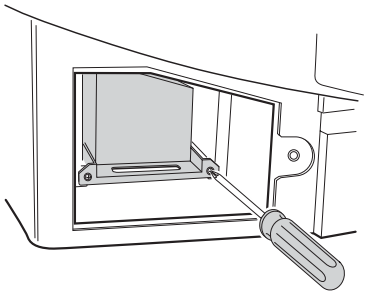
Allow the lamp to cool for at least 1 hour before replacing it.

Remember to wear gloves when replacing the lamp unit.

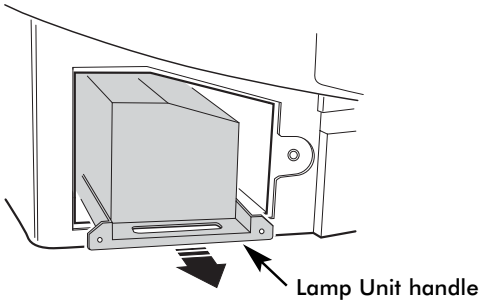
2 Undo the lamp unit door by loosening the thumb screw, then remove it by pulling the door outwards.



3 Using a manual Phillips hand screwdriver of suitable size, loosen the two screws on the bottom left and right of the lamp unit.



4 Using the lamp unit handle, gently pull the unit out of the television and put to one side.



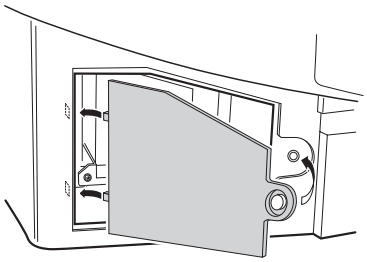
5 Carefully insert the new lamp unit into the television until it is fully seated.

NOTE:
Make sure that the lamp unit it not subjected to any knocks or bumps.

Never touch the lamp unit glass or allow it to get dirty. This may affect the picture quality and shorten the service life of the lamp.

6 Using the Phillips screwdriver tighten the two screws. Make sure that the screws are hand-tight only, do not use an electric screwdriver to avoid over-tightening.

7 Replace the lamp unit door by inserting the hooks on the left side of the door into the openings in the televisions cabinet.



8 Replace the thumb screw and hand-tighten.

9 Plug in the mains lead and take the television out of standby, the television may take a moment to come up to full brightness. The television should now operate normally.

If there is no picture, the picture is very dark or the television does not turn on, turn it back off and remove the plug from the mains power. Repeat steps 1 to 7 to ensure that the lamp unit has been installed correctly.

If the television still does not operate, make sure the television is unplugged and contact your Toshiba dealer.

Put the old lamp into the now empty lamp unit box and dispose of it according to local Government guidelines. Make sure it is out of reach of children and animals.

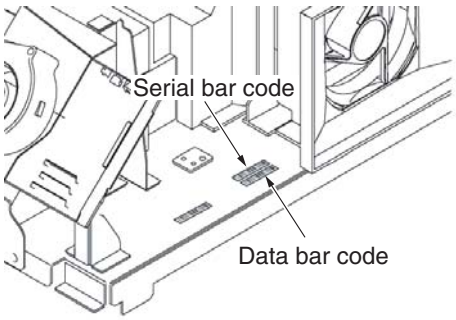
LIGHT ENGINE REPLACEMENT

Cautions when replacing LIGHT ENGINE

- LIGHT ENGINE is a heart of TV which emits high heat. Make sure to replace it after turning off the TV and wait for sufficient cool down. (More than one hour is recommended.)
- Do not add any impact during replacement; otherwise, some parts may be damaged.
- Do not touch any optical lens. Adhesion of dirt may deteriorate its performance.
- Do not loosen any screw other than those to be removed for adjustment or replacement.
- LIGHT ENGINE emits ultraviolet rays when the TV is ON. Make sure to be careful.

1. Replacement of Light Engine Unit

1-1. When Light Engine Unit is replaced with a new one, the adjustment is required. Adjusted values are described in bar code, and the values of bar code must be converted to the adjusted values for the setup. There are 2 types of bar code.



Serial bar code
Ex. 52A000A111111

Inch size — Serial numbers

Data bar code (CW: color wheel)
Ex. A111111B1111

CWdelay number: 4digits
DMD bias value
Substrate serial numbers

1-2. Adjustment is made by service mode. The adjusting items consist of CWDL, CWDH and DMDB.

CWDL CWDH

When CW delay number of the data bar code is 0450:

0450 indicates ⇒ 450 ⇒ 45.0
Double 45.0 to form hexadecimal number (HEX).

45.0 x 2=90 ⇒ 5A (hexadecimal)
The adjusted value becomes “5A” for CWDL and “00” for CWDH.
If hexadecimal number forms 3 or 4 digits, the latter 2 digits indicate CWDL while the first 2 digits indicate CWDH.
(For 3 digits, CWDH=0*)

Note:
For converting decimal number to hexadecimal number, see the conversion table on the next page.

DMDB

Read DMD bias value described in alphabet from the data bar code. In service mode, DMDB value is converted and fixed by the following table.

DMD value in bar code	Adjusted value (Hex)
B	00
C	01
D	02
E	03
F	04

Refer to Service Mode for adjusting the service mode.

Conversion Table for Decimal and Hexadecimal Numbers

CW delay number	CWDH	CWDL
0000	00	00
0005	00	01
0010	00	02
0015	00	03
0020	00	04
0025	00	05
0030	00	06
0035	00	07
0040	00	08
0045	00	09
0050	00	0A
0055	00	0B
0060	00	0C
0065	00	0D
0070	00	0E
0075	00	0F
0080	00	10
0085	00	11
0090	00	12
0095	00	13
0100	00	14
0105	00	15
0110	00	16
0115	00	17
0120	00	18
0125	00	19
0130	00	1A
0135	00	1B
0140	00	1C
0145	00	1D
0150	00	1E
0155	00	1F
0160	00	20
0165	00	21
0170	00	22
0175	00	23
0180	00	24
0185	00	25
0190	00	26
0195	00	27
0200	00	28
0205	00	29
0210	00	2A
0215	00	2B
0220	00	2C
0225	00	2D
0230	00	2E
0235	00	2F
0240	00	30
0245	00	31
0250	00	32
0255	00	33
0260	00	34
0265	00	35
0270	00	36
0275	00	37
0280	00	38
0285	00	39
0290	00	3A
0295	00	3B
0300	00	3C
0305	00	3D
0310	00	3E
0315	00	3F
0320	00	40
0325	00	41
0330	00	42
0335	00	43
0340	00	44
0345	00	45
0350	00	46
0355	00	47
0360	00	48
0365	00	49
0370	00	4A
0375	00	4B
0380	00	4C
0385	00	4D
0390	00	4E
0395	00	4F
0400	00	50
0405	00	51
0410	00	52
0415	00	53
0420	00	54
0425	00	55
0430	00	56
0435	00	57
0440	00	58
0445	00	59
0450	00	5A
0455	00	5B
0460	00	5C
0465	00	5D
0470	00	5E
0475	00	5F
0480	00	60
0485	00	61
0490	00	62
0495	00	63
0500	00	64
0505	00	65
0510	00	66
0515	00	67
0520	00	68
0525	00	69
0530	00	6A
0535	00	6B
0540	00	6C
0545	00	6D
0550	00	6E
0555	00	6F
0560	00	70
0565	00	71
0570	00	72
0575	00	73
0580	00	74
0585	00	75
0590	00	76
0595	00	77
0600	00	78
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0615	00	7B
0620	00	7C
0625	00	7D
0630	00	7E
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0640	00	80
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0655	00	83
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0710	00	8E
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0740	00	94
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0770	00	9A
0775	00	9B
0780	00	9C
0785	00	9D
0790	00	9E
0795	00	9F
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0805	00	A1
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0815	00	A3
0820	00	A4
0825	00	A5
0830	00	A6
0835	00	A7
0840	00	A8
0845	00	A9
0850	00	AA
0855	00	AB
0860	00	AC
0865	00	AD
0870	00	AE
0875	00	AF
0880	00	B0
0885	00	B1
0890	00	B2
0895	00	B3
0900	00	B4
0905	00	B5
0910	00	B6
0915	00	B7
0920	00	B8
0925	00	B9
0930	00	BA
0935	00	BB
0940	00	BC
0945	00	BD
0950	00	BE
0955	00	BF
0960	00	C0
0965	00	C1
0970	00	C2
0975	00	C3
0980	00	C4
0985	00	C5
0990	00	C6
0995	00	C7
1000	00	C8
1005	00	C9
1010	00	CA
1015	00	CB
1020	00	CC
1025	00	CD
1030	00	CE
1035	00	CF
1040	00	D0
1045	00	D1
1050	00	D2
1055	00	D3
1060	00	D4
1065	00	D5
1070	00	D6
1075	00	D7
1080	00	D8
1085	00	D9
1090	00	DA
1095	00	DB
1100	00	DC
1105	00	DD
1110	00	DE
1115	00	DF
1120	00	E0
1125	00	E1
1130	00	E2
1135	00	E3
1140	00	E4
1145	00	E5
1150	00	E6
1155	00	E7
1160	00	E8
1165	00	E9
1170	00	EA
1175	00	EB
1180	00	EC
1185	00	ED
1190	00	EE
1195	00	EF
1200	00	F0
1205	00	F1
1210	00	F2
1215	00	F3
1220	00	F4
1225	00	F5
1230	00	F6
1235	00	F7
1240	00	F8
1245	00	F9
1250	00	FA
1255	00	FB
1260	00	FC
1265	00	FD
1270	00	FE
1275	00	FF
1280	01	00
1285	01	01
1290	01	02
1295	01	03
1300	01	04
1305	01	05
1310	01	06
1315	01	07
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1335	01	0B
1340	01	0C
1345	01	0D
1350	01	0E
1355	01	0F
1360	01	10
1365	01	11
1370	01	12
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1445	01	21
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1520	01	30
1525	01	31
1530	01	32
1535	01	33
1540	01	34
1545	01	35
1550	01	36
1555	01	37
1560	01	38
1565	01	39
1570	01	3A
1575	01	3B
1580	01	3C
1585	01	3D
1590	01	3E
1595	01	3F
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1660	01	4C
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1670	01	4E
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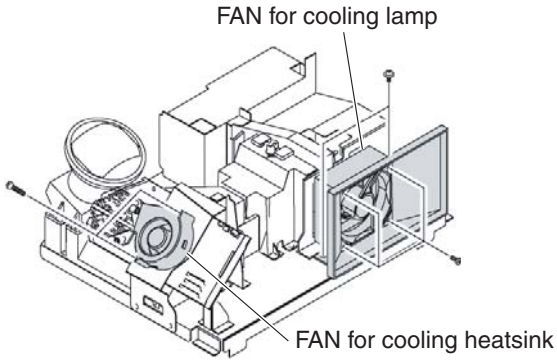
1715	01	57
1720	01	58
1725	01	59
1730	01	5A
1735	01	5B
1740	01	5C
1745	01	5D
1750	01	5E
1755	01	5F
1760	01	60
1765	01	61
1770	01	62
1775	01	63
1780	01	64
1785	01	65
1790	01	66
1795	01	67

PARTS REPLACEMENT IN LIGHT ENGINE

1 FAN Replacement

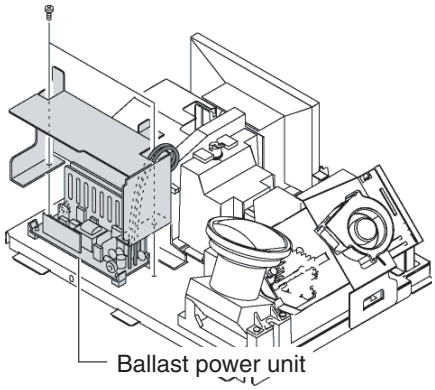
1-1. For replacing FAN for cooling heatsink, remove 2 screws.
For replacing FAN for cooling lamp, detach FAN hood located on LIGHT ENGINE by removing 2 screws and then remove 4 screws.



2. Replacement of Ballast Power Unit

2-1. Remove lamp unit by loosening 2 screws.
(Refer to pages 13 to 14)

2-2. Remove 2 screws holding chassis of ballast power unit to detach the chassis.
Note:
Treat with enough care so as not to damage the cable for lamp power.

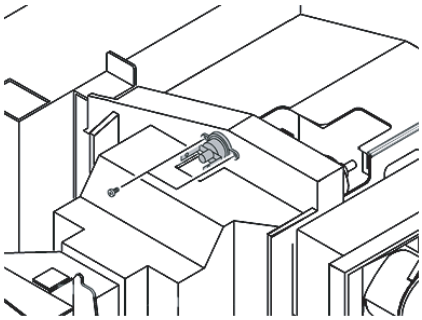


2-3. Detach the ballast power unit by removing 4 substrate stoppers that hold the ballast power unit.

CAUTION
Precautions When Exchanging Ballast Power Units
When you install a new ballast power unit, install it while pushing the four corners of the board directly. Installation while pressing the heatsink may cause the pattern crack.

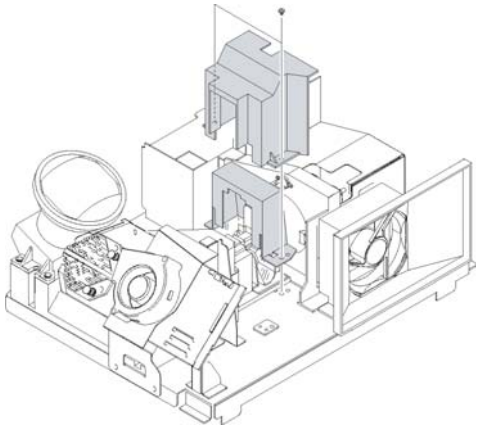
3. Replacement of Temperature Breaker

3-1. Remove 2 screws for replacing the temperature breaker for lamp.

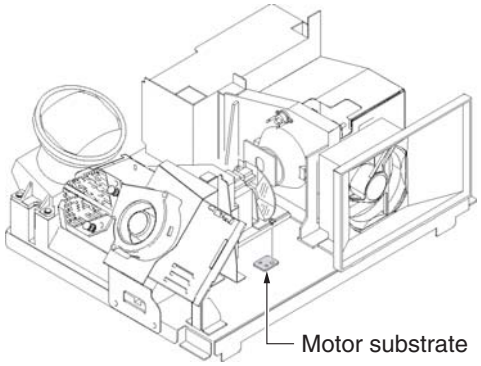


4 Replacement of Sensor Unit (Photo Detector Substrate) & Motor Unit (Motor Substrate)

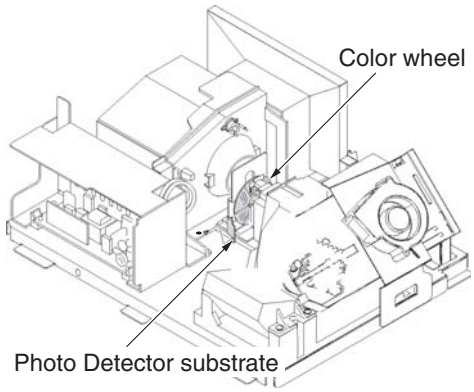
4-1. Remove 2 screws fixing a color wheel cover and UV filter box.



4-2. Remove one screw for motor unit.

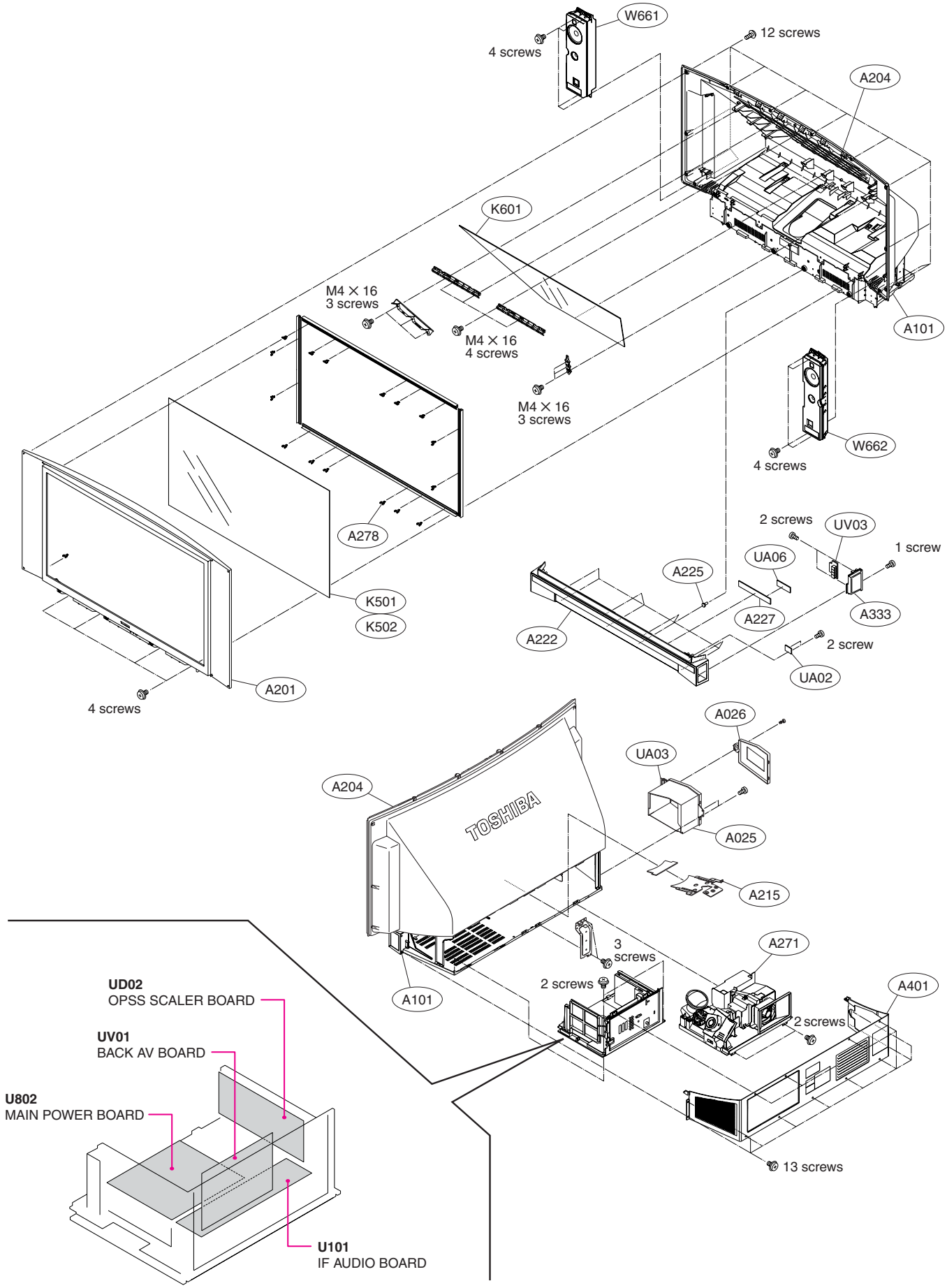


4-3. Remove 2 screws holding Photo Detector substrate.



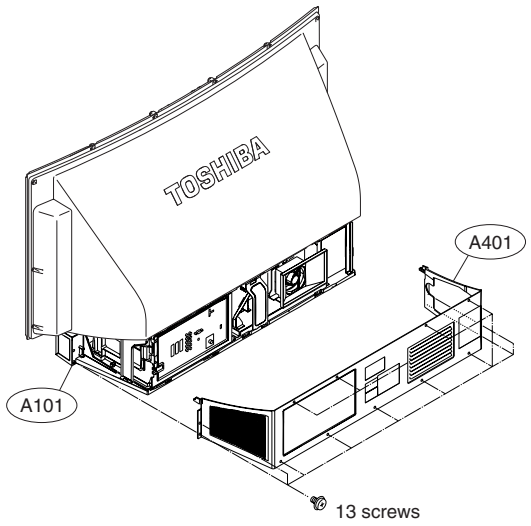
Caution
- When removing screws, do not damage the color wheel with drivers, etc. Even a small impact may damage the color wheel.
- Make sure not to touch the color wheel.
- Don't remove other screws by any means.

EXPLODED VIEW

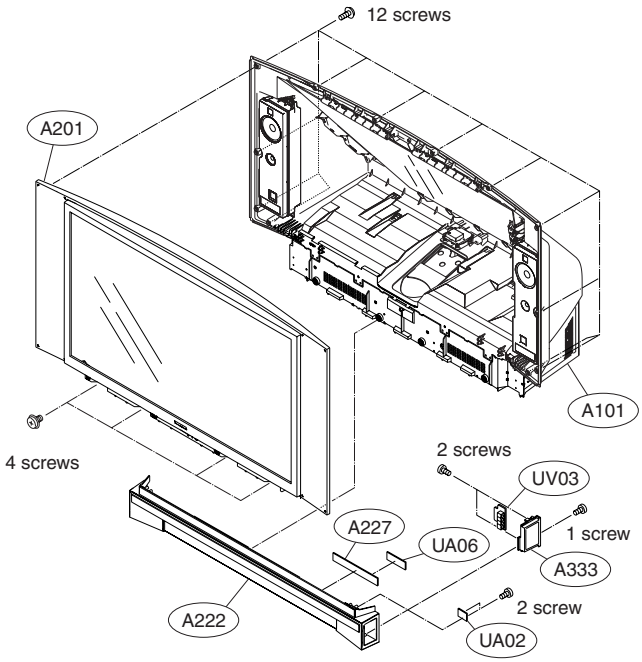


MECHANICAL DISASSEMBLY

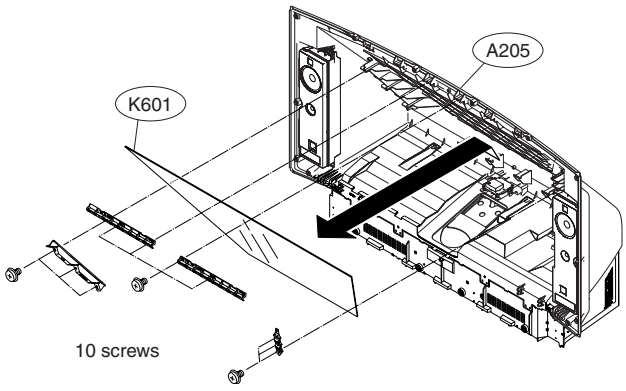
1 Rear Cover Removal



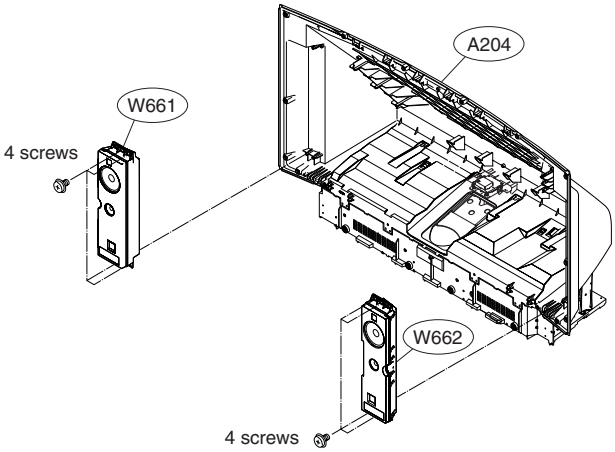
2 Touchpad & Bezel Ass'y Removal



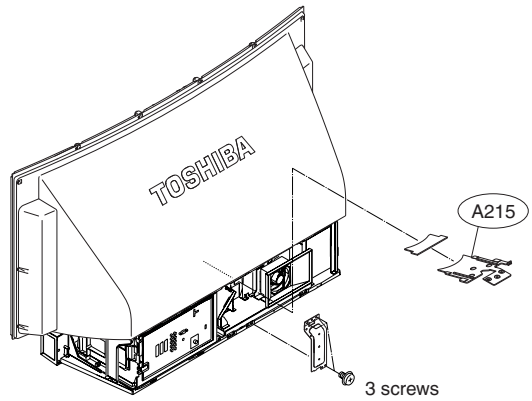
3 Mirror Removal



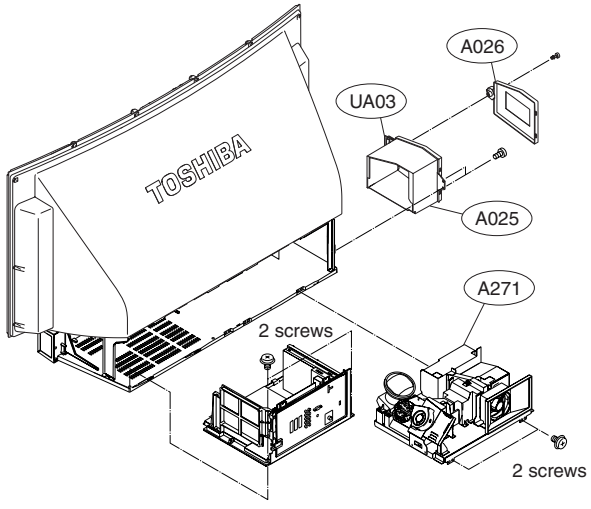
4 Speaker Removal



5 Bracket Removal



6 Optical Engine Removal



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “SAFETY PRECAUTION” AND “PRODUCT SAFETY NOTICE” ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "" in the schematic diagram and the parts list designate com-ponents which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 46WM48P

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C101	24796479	ELECTROLYTIC, 35V 4.7UF M
C102	24793221	ELECTROLYTIC, 10V 220UF M
C103	24109103	CERAMIC CHIP, 50V B 0.01UF K
C105	24109102	CERAMIC CHIP, 50V B 1000PF K
C106	24797100	ELECTROLYTIC, 50V 10UF M
C107	24797101	ELECTROLYTIC, 50V 100UF M
C108	24793221	ELECTROLYTIC, 10V 220UF M
C109	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C111	24109103	CERAMIC CHIP, 50V B 0.01UF K
C118	24109102	CERAMIC CHIP, 50V B 1000PF K
C121	24794101	ELECTROLYTIC, 16V 100UF M
C122	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C271	24797229	ELECTROLYTIC, 50V 2.2UF M
C601	24797100	ELECTROLYTIC, 50V 10UF M
C602	24797100	ELECTROLYTIC, 50V 10UF M
C603	24591152	PLASTIC FILM, 50V 1500PF J
C604	24591152	PLASTIC FILM, 50V 1500PF J
C605	24073086	ELECTROLYTIC, 50V 10UF M 3A
C606	24073086	ELECTROLYTIC, 50V 10UF M 3A
C607	24073053	ELECTROLYTIC, 25V 100UF M 3A
C608	24073086	ELECTROLYTIC, 50V 10UF M 3A
C609	24797479	ELECTROLYTIC, 50V 4.7UF M
C610	24797479	ELECTROLYTIC, 50V 4.7UF M
C611	24105101	CERAMIC CHIP, 50V CH 100PF J
C612	24105101	CERAMIC CHIP, 50V CH 100PF J
C618	24797100	ELECTROLYTIC, 50V 10UF M
C619	24794471	ELECTROLYTIC, 16V 470UF M
C621	24797100	ELECTROLYTIC, 50V 10UF M
C622	24591103	PLASTIC FILM, 50V 0.01UF J
C624	24794101	ELECTROLYTIC, 16V 100UF M
C625	24794221	ELECTROIYTIC, 16V 220UF M
C651	24797229	ELECTROLYTIC, 50V 2.2UF M
C652	24797229	ELECTROLYTIC, 50V 2.2UF M
C653	24797229	ELECTROLYTIC, 50V 2.2UF M
C654	24797229	ELECTROLYTIC, 50V 2.2UF M
C655	24109102	CERAMIC CHIP, 50V B 1000PF K
C656	24109102	CERAMIC CHIP, 50V B 1000PF K
C659	24794101	ELECTROLYTIC, 16V 100UF M
C660	24794101	ELECTROLYTIC, 16V 100UF M
C661	24073042	ELECTROLYTIC, 16V 1000UF M 3A
C662	24797229	ELECTROLYTIC, 50V 2.2UF M
C680	24073058	ELECTROLYTIC, 25V 2200UF M 3A
C681	24109103	CERAMIC CHIP, 50V B 0.01UF K

Location No.	Parts No.	Description
C691	24794100	ELECTROLYTIC, 16V 10UF M
C692	24794100	ELECTROLYTIC, 16V 10UF M
⚠ C801	24503004	PLASTIC FILM, AC275V 0.47UF M
⚠ C803	24503002	PLASTIC FILM, AC275V 0.22UF M
C805	24092281	CERAMIC DISC, AC250V E 4700PF
C806	24092281	CERAMIC DISC, AC250V E 4700PF
C810	24086936	ELECTROLYTIC, 450V 270UF M 25F
⚠ C811	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ C812	24092565	CERAMIC DISC, AC250V B 470PF K
C815	24092565	CERAMIC DISC, AC250V B 470PF K
C840	24073098	ELECTROLYTIC, 450V 4.7UF M 3A
C841	24073043	ELECTROLYTIC, 16V 2200UF M 3A
C842	24503041	PLASTIC FILM , 63V 0.1UF J
C843	24092333	CERAMIC DISC, 2KV 100PF K
C845	24073082	ELECTROLYTIC, 50V 2.2UF M 3A
C846	24503229	PLASTIC FILM, 1250VH 1000PF H
C847	24095634	PLASTIC FILM, 630V 0.01UF H
C848	24073039	ELECTROLYTIC, 16V 220UF M 3A
C850	24092341	CERAMIC DISC, 2KV R 470PF K
C851	24092341	CERAMIC DISC, 2KV R 470PF K
C861	24092342	CERAMIC DISC, 2KV R 560PF K
C862	24503045	PLASTIC FILM, 63V 0.22UF J
C863	24212221	CERAMIC DISC, 50V B 220PF K
C864	24590681	PLASTIC FILM CQ922M 50V 680PF J
C865	24073063	ELECTROLYTIC CE04P 35V 4.7UF M 3A
C866	24820223	PLASTIC FILM, 630V 0.022UF J
C868	24073068	ELECTROLYTIC, 35V 100UF M 3A
C883	24567104	PLASTIC FILM, 50V 0.1UF J
C884	24214331	CERAMIC DISC, 500V B 330PF K
C885	24073174	ELECTROLYTIC CE04P 25V 1500UF M 3A
C886	24214331	CERAMIC DISC, 500V B 330PF K
C887	24676470	ELECTROLYTIC, 100V 47UF M 3A
C888	24214331	CERAMIC DISC, 500V B 330PF K
C889	24073157	ELECTROLYTIC CE04P 16V 1500UF M 3A
C890	24214331	CERAMIC DISC, 500V B 330PF K
C891	24073145	ELECTROLYTIC CE04P 10V 3300UF M 3A
C892	24214331	CERAMIC DISC, 500V B 330PF K
C893	24073145	ELECTROLYTIC CE04P 10V 3300UF M 3A
C894	24214331	CERAMIC DISC, 500V B 330PF K
C895	24073193	ELECTROLYTIC CE04P 35V 2200UF M 3A
C898	24503041	PLASTIC FILM , 63V 0.1UF J
⚠ C899	24092567	CERAMIC DISC, AC250V E 1000PF M
C4100	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4101	24092731	CERAMIC CHIP, 16V B 1UF K

Location No.	Parts No.	Description
C4102	24108150	CERAMIC CHIP, 50V SL 15PF J
C4103	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4104	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4105	24092731	CERAMIC CHIP, 16V B 1UF K
C4106	24092731	CERAMIC CHIP, 16V B 1UF K
C8200	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8201	24503047	PLASTIC FILM, 63V 0.33UF J
C8202	24073151	ELECTROLYTIC CE04P 16V 120UF M 3A
C8210	24073172	ELECTROLYTIC CE04P 25V 1000UF M 3A
C8211	24503041	PLASTIC FILM , 63V 0.1UF J
C8212	24214221	CERAMIC DISC, 500V B 220PF K
C8213	24503041	PLASTIC FILM , 63V 0.1UF J
C8214	24617006	ELECTROLYTIC, 25V 820UF M
C8215	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
C8220	24073068	ELECTROLYTIC, 35V 100UF M 3A
C8221	24073153	ELECTROLYTIC CE04P 16V 470UF M 3A
C8223	24073086	ELECTROLYTIC, 50V 10UF M 3A
C8224	24073139	ELECTROLYTIC CE04P 10V 470UF M 3A
C8226	24503047	PLASTIC FILM, 63V 0.33UF J
C8227	24503047	PLASTIC FILM, 63V 0.33UF J
C8240	24073038	ELECTROLYTIC, 16V 100UF M 3A
C8241	24503047	PLASTIC FILM, 63V 0.33UF J
C8242	24073125	ELECTROLYTIC CE04P 6.3V 150UF M 3A
C8250	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
C8251	24567334	PLASTIC FILM, 50V 0.33UF J
C8252	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
C8253	24669339	ELECTROLYTIC, 50V 3.3UF M
C8905	24073038	ELECTROLYTIC, 16V 100UF M 3A
C8911	24503047	PLASTIC FILM, 63V 0.33UF J
C8921	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
C8930	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8932	24073052	ELECTROLYTIC, 25V 47UF M 3A
C8933	24073040	ELECTROLYTIC, 16V 330UF M 3
C8940	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8942	24073052	ELECTROLYTIC, 25V 47UF M 3A
C8943	24073040	ELECTROLYTIC, 16V 330UF M 3
CA81	24109183	CERAMIC CHIP, 50V B 18000PF K
CA82	24109183	CERAMIC CHIP, 50V B 18000PF K
CA83	24109102	CERAMIC CHIP, 50V B 1000PF K
CA84	24109183	CERAMIC CHIP, 50V B 18000PF K
CA85	24109183	CERAMIC CHIP, 50V B 18000PF K
CA86	24109183	CERAMIC CHIP, 50V B 18000PF K
CA87	24109183	CERAMIC CHIP, 50V B 18000PF K
CA88	24109102	CERAMIC CHIP, 50V B 1000PF K
CA89	24109183	CERAMIC CHIP, 50V B 18000PF K
CA90	24109183	CERAMIC CHIP, 50V B 18000PF K
CA91	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA92	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA93	24619040	ELEC. CHIP, 16V 10UF M 3A
CA94	24619040	ELEC. CHIP, 16V 10UF M 3A
CA95	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA96	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA97	24105330	CERAMIC CHIP, 50V CH 33PF J
CA98	24105330	CERAMIC CHIP, 50V CH 33PF J
CB01	24794470	ELECTROLYTIC, 16V 47UF M
CB40	24092538	CERAMIC CHIP, 10V F 1UF Z
CB41	24109222	CERAMIC CHIP, 50V B 2200PF K
CB42	24105561	CERAMIC CHIP, 50V CH 560PF J
CB43	24109332	CERAMIC CHIP, 50V B 3300PF K
CB44	24092859	CERAMIC CHIP CK73B 10V 1UF K
CB81	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC04	24105220	CERAMIC CHIP, 50V CH 22PF J
CC19	24109102	CERAMIC CHIP, 50V B 1000PF K
CC47	24109332	CERAMIC CHIP, 50V B 3300PF K
CC48	24109332	CERAMIC CHIP, 50V B 3300PF K
CC51	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC52	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC61	24109102	CERAMIC CHIP, 50V B 1000PF K
CC62	24109102	CERAMIC CHIP, 50V B 1000PF K

Location No.	Parts No.	Description
CC63	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC64	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC65	24109102	CERAMIC CHIP, 50V B 1000PF K
CC66	24109102	CERAMIC CHIP, 50V B 1000PF K
CC67	24109102	CERAMIC CHIP, 50V B 1000PF K
CC68	24109102	CERAMIC CHIP, 50V B 1000PF K
CC69	24109102	CERAMIC CHIP, 50V B 1000PF K
CC70	24109102	CERAMIC CHIP, 50V B 1000PF K
CC71	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC72	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC73	24109102	CERAMIC CHIP, 50V B 1000PF K
CC74	24109102	CERAMIC CHIP, 50V B 1000PF K
CC75	24109102	CERAMIC CHIP, 50V B 1000PF K
CC76	24109102	CERAMIC CHIP, 50V B 1000PF K
CC77	24109102	CERAMIC CHIP, 50V B 1000PF K
CC78	24109102	CERAMIC CHIP, 50V B 1000PF K
CC79	24109102	CERAMIC CHIP, 50V B 1000PF K
CC80	24109102	CERAMIC CHIP, 50V B 1000PF K
CC81	24109102	CERAMIC CHIP, 50V B 1000PF K
CF34	24092538	CERAMIC CHIP, 10V F 1UF Z
CF38	24794100	ELECTROLYTIC, 16V 10UF M
CF39	24109103	CERAMIC CHIP, 50V B 0.01UF K
CF40	24105121	CERAMIC CHIP, 50V CH 120PF J
CS01	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS02	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS05	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS06	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS07	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS08	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS09	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS10	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS11	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS12	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS13	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS14	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS15	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS16	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS17	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS18	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS21	24109103	CERAMIC CHIP, 50V B 0.01UF K
CS22	24794470	ELECTROLYTIC, 16V 47UF M
CS23	24794220	ELECTROLYTIC, 16V 22UF M
CS24	24797229	ELECTROLYTIC, 50V 2.2UF M
CS25	24797229	ELECTROLYTIC, 50V 2.2UF M
CS26	24797229	ELECTROLYTIC, 50V 2.2UF M
CS27	24797229	ELECTROLYTIC, 50V 2.2UF M
CS28	24797479	ELECTROLYTIC, 50V 4.7UF M
CS29	24797479	ELECTROLYTIC, 50V 4.7UF M
CS30	24794470	ELECTROLYTIC, 16V 47UF M
CS31	24794100	ELECTROLYTIC, 16V 10UF M
CS32	24794100	ELECTROLYTIC, 16V 10UF M
CS33	24794100	ELECTROLYTIC, 16V 10UF M
CS34	24794100	ELECTROLYTIC, 16V 10UF M
CS35	24794100	ELECTROLYTIC, 16V 10UF M
CS36	24794100	ELECTROLYTIC, 16V 10UF M
CS37	24794100	ELECTROLYTIC, 16V 10UF M
CV01	24794101	ELECTROLYTIC, 16V 100UF M
CV02	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV03	24794101	ELECTROLYTIC, 16V 100UF M
CV04	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV05	24794101	ELECTROLYTIC, 16V 100UF M
CV06	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV11	24092731	CERAMIC CHIP, 16V B 1UF K
CV12	24092731	CERAMIC CHIP, 16V B 1UF K
CV13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV15	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV16	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV17	24092731	CERAMIC CHIP, 16V B 1UF K

Location No.	Parts No.	Description
CV18	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV19	24092731	CERAMIC CHIP, 16V B 1UF K
CV20	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV21	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV22	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV23	24092731	CERAMIC CHIP, 16V B 1UF K
CV24	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV25	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV26	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV27	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV28	24092731	CERAMIC CHIP, 16V B 1UF K
CV29	24092731	CERAMIC CHIP, 16V B 1UF K
CV30	24092731	CERAMIC CHIP, 16V B 1UF K
CV31	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV32	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV33	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV34	24092731	CERAMIC CHIP, 16V B 1UF K
CV35	24092731	CERAMIC CHIP, 16V B 1UF K
CV36	24092731	CERAMIC CHIP, 16V B 1UF K
CV39	24794101	ELECTROLYTIC, 16V 100UF M
CV40	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV41	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV42	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV44	24794470	ELECTROLYTIC, 16V 47UF M
CV45	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV46	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV47	24092538	CERAMIC CHIP, 10V F 1UF Z
CV48	24092538	CERAMIC CHIP, 10V F 1UF Z
CV49	24092538	CERAMIC CHIP, 10V F 1UF Z
CV50	24092538	CERAMIC CHIP, 10V F 1UF Z
CV52	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV53	24092621	CERAMIC CHIP, 10V B 1UF K
CV57	24794101	ELECTROLYTIC, 16V 100UF M
CV61	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV62	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV63	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV64	24762471	ELECTROLYTIC, 10V 470UF M
CV67	24794101	ELECTROLYTIC, 16V 100UF M
CV74	24794101	ELECTROLYTIC, 16V 100UF M
CV75	24794101	ELECTROLYTIC, 16V 100UF M
CV76	24092538	CERAMIC CHIP, 10V F 1UF Z
CV77	24092538	CERAMIC CHIP, 10V F 1UF Z
CV78	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV80	24794471	ELECTROLYTIC, 16V 470UF M
CV81	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV82	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV89	24794471	ELECTROLYTIC, 16V 470UF M
CV91	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV92	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV93	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV94	24794101	ELECTROLYTIC, 16V 100UF M
CV95	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV96	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV97	24762471	ELECTROLYTIC, 10V 470UF M
CV98	24762471	ELECTROLYTIC, 10V 470UF M
RESISTORS		
R170	24011101	CHIP, 1/20W 100 OHM J
R171	24011183	CHIP, 1/20W 18K OHM J
R172	24011273	CHIP, 1/20W 27K OHM J
R271	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R272	24011473	CHIP, 1/20W 47K OHM J
R273	24011102	CHIP, 1/20W 1K OHM J
R274	24011101	CHIP, 1/20W 100 OHM J
R275	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
R276	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R601	24011332	CHIP, 1/20W 3.3K OHM J
R602	24011332	CHIP, 1/20W 3.3K OHM J
R603	24011561	CHIP, 1/20W 560 OHM J

Location No.	Parts No.	Description
R604	24011561	CHIP, 1/20W 560 OHM J
R605	24011223	CHIP, 1/20W 22K OHM J
R606	24011223	CHIP, 1/20W 22K OHM J
R607	24011563	CHIP, 1/20W 56K OHM J
R608	24011223	CHIP, 1/20W 22K OHM J
R609	24011223	CHIP, 1/20W 22K OHM J
R610	24011223	CHIP, 1/20W 22K OHM J
R611	24011473	CHIP, 1/20W 47K OHM J
R612	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R613	24011223	CHIP, 1/20W 22K OHM J
R614	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R615	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R616	24011822	CHIP, 1/20W 8.2K OHM J
R618	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R619	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R620	24553471	OXIDE METAL FILM, 1W 470 OHM J
R621	24011392	CHIP, 1/20W 3.9K OHM J
R622	24011183	CHIP, 1/20W 18K OHM J
R623	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R624	24011822	CHIP, 1/20W 8.2K OHM J
R625	24011822	CHIP, 1/20W 8.2K OHM J
R626	24011822	CHIP, 1/20W 8.2K OHM J
R627	24011822	CHIP, 1/20W 8.2K OHM J
R628	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R629	24011472	CHIP, 1/20W 4.7K OHM J
R630	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R633	24011222	CHIP, 1/20W 2.2K OHM J
R641	24011562	CHIP, 1/20W 5.6K OHM J
R642	24011562	CHIP, 1/20W 5.6K OHM J
R643	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R644	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R645	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R646	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R651	24011473	CHIP, 1/20W 47K OHM J
R652	24011473	CHIP, 1/20W 47K OHM J
R653	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R654	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R655	24011223	CHIP, 1/20W 22K OHM J
R656	24011223	CHIP, 1/20W 22K OHM J
R659	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R660	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R661	24011472	CHIP, 1/20W 4.7K OHM J
R662	24011473	CHIP, 1/20W 47K OHM J
R663	24553470	OXIDE METAL FILM, 1W 47 OHM J
R664	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R665	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R667	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R691	24011222	CHIP, 1/20W 2.2K OHM J
R692	24011391	CHIP, 1/20W 390 OHM J
R693	24011223	CHIP, 1/20W 22K OHM J
R694	24011223	CHIP, 1/20W 22K OHM J
R695	24011391	CHIP, 1/20W 390 OHM J
R696	24011223	CHIP, 1/20W 22K OHM J
R697	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R698	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
⚠ R801	24009954	METAL FILN, 1/2W 2.2M OHM J
R810	24568479	CERAMIC COVERED, 7W 4.7 OHM J
R811	24007061	CERAMIC COVERED, 2W 1.8 OHM K
R840	24552562	OXIDE METAL FILM, 1/2W 5.6K OHM J
R841	24366102	CARBON FILM, 1/6W 1K OHM J
R845	24366103	CARBON FILM, 1/6W 10K OHM J
R846	24366472	CARBON FILM, 1/6W 4.7K OHM J
R847	24366103	CARBON FILM, 1/6W 10K OHM J
R848	24366332	CARBON FILM, 1/6W 3.3K OHM J
R849	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R850	24366153	CARBON FILM, 1/6W 15K OHM J
R860	24382101	OXIDE METAL FILM, 1W 100 OHM J
R861	24383333	OXIDE METAL FILM, 2W 33K OHM J
R862	24004945	METAL FILM, 1W 0.18 OHM J

Location No.	Parts No.	Description
R863	24004944	METAL FILM, 1W 0.15 OHM J
R865	24381221	OXIDE METAL FILM, 1/2W 220 OHM J
R866	24366681	CARBON FILM, 1/6W 680 OHM J
R867	24366152	CARBON FILM, 1/6W 1.5K OHM J
R868	24555473	OXIDE METAL FILM, 3W 47K OHM J
R869	24366152	CARBON FILM, 1/6W 1.5K OHM J
R870	24366154	CARBON FILM, 1/6W 150K OHM J
R881	24366222	CARBON FILM, 1/6W 2.2K OHM J
R882	24366471	CARBON FILM, 1/6W 470 OHM J
R885	24366102	CARBON FILM, 1/6W 1K OHM J
R886	24000525	METAL FILM, 1/4W 4.7K OHM F
R887	24367683	CARBON FILM, 1/6W 68K OHM G
R888	24000525	METAL FILM, 1/4W 4.7K OHM F
R889	24382332	OXIDE FILM 1W 3.3K J
R891	24555331	OXIDE METAL FILM, 3W 330 OHM J
R892	24555331	OXIDE METAL FILM, 3W 330 OHM J
⚠ R899	24005014	METAL FILM, 1W 8.2M OHM J
R4100	24011101	CHIP, 1/20W 100 OHM J
R4101	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R4102	24011471	CHIP, 1/20W 470 OHM J
R4103	24011102	CHIP, 1/20W 1K OHM J
R4104	24011152	CHIP, 1/20W 1.5K OHM J
R4105	24011101	CHIP, 1/20W 100 OHM J
R4106	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R4107	24011471	CHIP, 1/20W 470 OHM J
R4108	24011102	CHIP, 1/20W 1K OHM J
R4109	24011152	CHIP, 1/20W 1.5K OHM J
R4110	24011101	CHIP, 1/20W 100 OHM J
R4111	24011102	CHIP, 1/20W 1K OHM J
R4112	24011152	CHIP, 1/20W 1.5K OHM J
R4113	24011101	CHIP, 1/20W 100 OHM J
R4114	24011102	CHIP, 1/20W 1K OHM J
R4115	24011102	CHIP, 1/20W 1K OHM J
R4116	24011102	CHIP, 1/20W 1K OHM J
R4117	24011102	CHIP, 1/20W 1K OHM J
R4118	24998103	CHIP, 1/16W 10K OHM
R4120	24000445	CHIP JUMPER, 1608TYPE
R4122	24000445	CHIP JUMPER, 1608TYPE
R4125	24011102	CHIP, 1/20W 1K OHM J
R4126	24011152	CHIP, 1/20W 1.5K OHM J
R8200	24367390	CARBON FILM, 1/6W 390 OHM G
R8201	24367332	CARBON FILM, 1/6W 3.3K OHM G
R8210	24000147	METAL FILM, 1/4W 470 OHM F
R8211	24000219	METAL FILM, 1/4W 10 OHM F
R8220	24367390	CARBON FILM, 1/6W 390 OHM G
R8240	24000366	METAL FILM, 1/4W 2.2K OHM F
R8241	24000360	METAL FILM, 1/4W 1.2K OHM F
R8242	24366101	CARBON FILM, 1/6W 100 OHM J
R8250	24000145	METAL FILM, 1/4W 330 OHM F
R8251	24000145	METAL FILM, 1/4W 330 OHM F
R8252	24367392	CARBON FILM, 1/6W 3.9K OHM G
R8902	24366222	CARBON FILM, 1/6W 2.2K OHM J
R8903	24366222	CARBON FILM, 1/6W 2.2K OHM J
R8904	24366472	CARBON FILM, 1/6W 4.7K OHM J
R8905	24366681	CARBON FILM, 1/6W 680 OHM J
R8908	24366473	CARBON FILM, 1/6W 47K OHM J
R8910	24366821	CARBON FILM, 1/6W 820 OHM J
R8911	24366103	CARBON FILM, 1/6W 10K OHM J
R8912	24366223	CARBON FILM, 1/6W 22K OHM J
R8913	24366334	CARBON FILM, 1/6W 330K OHM J
R8914	24366223	CARBON FILM, 1/6W 22K OHM J
R8915	24366102	CARBON FILM, 1/6W 1K OHM J
R8917	24366102	CARBON FILM, 1/6W 1K OHM J
R8931	24367123	CARBON FILM, 1/6W 12K OHM G
R8932	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8934	24367472	CARBON FILM, 1/6W 4.7K OHM G
R8941	24367123	CARBON FILM, 1/6W 12K OHM G
R8942	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8944	24367472	CARBON FILM, 1/6W 4.7K OHM G

Location No.	Parts No.	Description
R8950	24366103	CARBON FILM, 1/6W 10K OHM J
R8951	24366103	CARBON FILM, 1/6W 10K OHM J
RA71	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA72	24011223	CHIP, 1/20W 22K OHM J
RA73	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RA75	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA76	24011223	CHIP, 1/20W 22K OHM J
RA77	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RA78	24000445	CHIP JUMPER, 1608TYPE
RA79	24000445	CHIP JUMPER, 1608TYPE
RA81	24011102	CHIP, 1/20W 1K OHM J
RA82	24011102	CHIP, 1/20W 1K OHM J
RA84	24011102	CHIP, 1/20W 1K OHM J
RA85	24011102	CHIP, 1/20W 1K OHM J
RA86	24011102	CHIP, 1/20W 1K OHM J
RA87	24011102	CHIP, 1/20W 1K OHM J
RA89	24011102	CHIP, 1/20W 1K OHM J
RA90	24011102	CHIP, 1/20W 1K OHM J
RA91	24011470	CHIP, 1/20W 47 OHM J
RA92	24011470	CHIP, 1/20W 47 OHM J
RA93	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA94	24011332	CHIP, 1/20W 3.3K OHM J
RA95	24011332	CHIP, 1/20W 3.3K OHM J
RB12	24366471	CARBON FILM, 1/6W 470 OHM J
RB15	24366470	CARBON FILM, 1/6W 47 OHM J
RB32	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB33	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB34	24011392	CHIP, 1/20W 3.9K OHM J
RB35	24011392	CHIP, 1/20W 3.9K OHM J
RB41	24011222	CHIP, 1/20W 2.2K OHM J
RB42	24011473	CHIP, 1/20W 47K OHM J
RB43	24011473	CHIP, 1/20W 47K OHM J
RB44	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB46	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RB49	24011331	CHIP, 1/20W 330 OHM J
RB81	24011471	CHIP, 1/20W 470 OHM J
RB82	24011471	CHIP, 1/20W 470 OHM J
RB83	24011102	CHIP, 1/20W 1K OHM J
RB84	24011473	CHIP, 1/20W 47K OHM J
RB87	24011102	CHIP, 1/20W 1K OHM J
RB88	24011102	CHIP, 1/20W 1K OHM J
RB89	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB90	24011562	CHIP, 1/20W 5.6K OHM J
RB92	24011473	CHIP, 1/20W 47K OHM J
RB93	24011102	CHIP, 1/20W 1K OHM J
RC50	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC51	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC61	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC62	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC63	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC64	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC65	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC66	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC67	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC68	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC69	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC70	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC71	24011821	CHIP, 1/20W 820 OHM J
RC72	24011821	CHIP, 1/20W 820 OHM J
RF18	24011101	CHIP, 1/20W 100 OHM J
RF19	24011223	CHIP, 1/20W 22K OHM J
RF20	24011473	CHIP, 1/20W 47K OHM J
RF21	24011102	CHIP, 1/20W 1K OHM J
RF22	24011102	CHIP, 1/20W 1K OHM J
RF23	24011101	CHIP, 1/20W 100 OHM J
RF24	24011102	CHIP, 1/20W 1K OHM J
RF25	24000445	CHIP JUMPER, 1608TYPE
RF26	24011271	CHIP, 1/20W 270 OHM J
RF27	24011471	CHIP, 1/20W 470 OHM J

Location No.	Parts No.	Description
RR01	24871750	CHIP, 1/8W 75 OHM J
RR02	24871750	CHIP, 1/8W 75 OHM J
RR03	24871750	CHIP, 1/8W 75 OHM J
RR04	24011330	CHIP, 1/20W 33 OHM J
RR05	24011330	CHIP, 1/20W 33 OHM J
RR06	24011330	CHIP, 1/20W 33 OHM J
RS01	24011562	CHIP, 1/20W 5.6K OHM J
RS02	24011562	CHIP, 1/20W 5.6K OHM J
RS05	24011562	CHIP, 1/20W 5.6K OHM J
RS06	24011562	CHIP, 1/20W 5.6K OHM J
RS07	24011562	CHIP, 1/20W 5.6K OHM J
RS08	24011562	CHIP, 1/20W 5.6K OHM J
RS09	24011562	CHIP, 1/20W 5.6K OHM J
RS10	24011562	CHIP, 1/20W 5.6K OHM J
RS11	24011562	CHIP, 1/20W 5.6K OHM J
RS12	24011562	CHIP, 1/20W 5.6K OHM J
RS13	24011562	CHIP, 1/20W 5.6K OHM J
RS14	24011562	CHIP, 1/20W 5.6K OHM J
RS15	24011562	CHIP, 1/20W 5.6K OHM J
RS16	24011562	CHIP, 1/20W 5.6K OHM J
RS17	24011562	CHIP, 1/20W 5.6K OHM J
RS18	24011562	CHIP, 1/20W 5.6K OHM J
RS21	24011101	CHIP, 1/20W 100 OHM J
RS22	24011101	CHIP, 1/20W 100 OHM J
RS23	24000445	CHIP JUMPER, 1608TYPE
RS24	24000445	CHIP JUMPER, 1608TYPE
RS25	24000445	CHIP JUMPER, 1608TYPE
RS26	24000445	CHIP JUMPER, 1608TYPE
RS27	24011101	CHIP, 1/20W 100 OHM J
RS28	24011101	CHIP, 1/20W 100 OHM J
RS29	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RS30	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RS31	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RS32	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS33	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS34	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS35	24011473	CHIP, 1/20W 47K OHM J
RS36	24011473	CHIP, 1/20W 47K OHM J
RS37	24011473	CHIP, 1/20W 47K OHM J
RS38	24011473	CHIP, 1/20W 47K OHM J
RS39	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS40	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS41	24011393	CHIP, 1/20W 39K OHM J
RS42	24011563	CHIP, 1/20W 56K OHM J
RS43	24011101	CHIP, 1/20W 100 OHM J
RS44	24011222	CHIP, 1/20W 2.2K OHM J
RS45	24011393	CHIP, 1/20W 39K OHM J
RS46	24011563	CHIP, 1/20W 56K OHM J
RS47	24011101	CHIP, 1/20W 100 OHM J
RS48	24011222	CHIP, 1/20W 2.2K OHM J
RS51	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS52	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS53	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS54	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS55	24011271	CHIP, 1/20W 270 OHM J
RS56	24011271	CHIP, 1/20W 270 OHM J
RS57	24011223	CHIP, 1/20W 22K OHM J
RS58	24011223	CHIP, 1/20W 22K OHM J
RS59	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS60	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS61	24011271	CHIP, 1/20W 270 OHM J
RS62	24011271	CHIP, 1/20W 270 OHM J
RS63	24011223	CHIP, 1/20W 22K OHM J
RS64	24011223	CHIP, 1/20W 22K OHM J
RS65	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS66	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS67	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS68	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS69	24011681	CHIP, METAL FILM, 1/20W 680 OHM J

Location No.	Parts No.	Description
RS70	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS71	24011223	CHIP, 1/20W 22K OHM J
RS72	24011223	CHIP, 1/20W 22K OHM J
RS73	24011223	CHIP, 1/20W 22K OHM J
RS74	24011223	CHIP, 1/20W 22K OHM J
RS75	24011222	CHIP, 1/20W 2.2K OHM J
RS98	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS99	24011102	CHIP, 1/20W 1K OHM J
RV01	24011101	CHIP, 1/20W 100 OHM J
RV02	24011101	CHIP, 1/20W 100 OHM J
RV03	24011101	CHIP, 1/20W 100 OHM J
RV04	24011101	CHIP, 1/20W 100 OHM J
RV05	24011101	CHIP, 1/20W 100 OHM J
RV08	24011101	CHIP, 1/20W 100 OHM J
RV09	24000445	CHIP JUMPER, 1608TYPE
RV11	24011101	CHIP, 1/20W 100 OHM J
RV14	24019388	CHIP, 1/16W 10K OHM F
RV15	24011101	CHIP, 1/20W 100 OHM J
RV16	24011101	CHIP, 1/20W 100 OHM J
RV17	24011101	CHIP, 1/20W 100 OHM J
RV18	24011101	CHIP, 1/20W 100 OHM J
RV19	24011101	CHIP, 1/20W 100 OHM J
RV23	24011101	CHIP, 1/20W 100 OHM J
RV24	24019388	CHIP, 1/16W 10K OHM F
RV28	24011101	CHIP, 1/20W 100 OHM J
RV29	24011101	CHIP, 1/20W 100 OHM J
RV30	24011101	CHIP, 1/20W 100 OHM J
RV33	24019388	CHIP, 1/16W 10K OHM F
RV34	24011101	CHIP, 1/20W 100 OHM J
RV35	24011101	CHIP, 1/20W 100 OHM J
RV36	24011101	CHIP, 1/20W 100 OHM J
RV37	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV38	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV39	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV40	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RV41	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RV43	24011101	CHIP, 1/20W 100 OHM J
RV45	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV46	24019384	CHIP, METAL FILM, 1/16W 3.9K OHM F
RV47	24019350	METAL FILM CHIP 1/16W 1R5K F
RV48	24019384	CHIP, METAL FILM, 1/16W 3.9K OHM F
RV49	24019350	METAL FILM CHIP 1/16W 1R5K F
RV50	24019384	CHIP, METAL FILM, 1/16W 3.9K OHM F
RV51	24019350	METAL FILM CHIP 1/16W 1R5K F
RV52	24000445	CHIP JUMPER, 1608TYPE
RV53	24011101	CHIP, 1/20W 100 OHM J
RV54	24011101	CHIP, 1/20W 100 OHM J
RV55	24011101	CHIP, 1/20W 100 OHM J
RV56	24011101	CHIP, 1/20W 100 OHM J
RV57	24011101	CHIP, 1/20W 100 OHM J
RV58	24011101	CHIP, 1/20W 100 OHM J
RV59	24011101	CHIP, 1/20W 100 OHM J
RV60	24011222	CHIP, 1/20W 2.2K OHM J
RV61	24011101	CHIP, 1/20W 100 OHM J
RV62	24011222	CHIP, 1/20W 2.2K OHM J
RV65	24011101	CHIP, 1/20W 100 OHM J
RV66	24871471	CHIP, 1/8W 470 OHM J
RV67	24011330	CHIP, 1/20W 33 OHM J
RV68	24872750	CHIP, 1/16W 75 OHM J
RV69	24872750	CHIP, 1/16W 75 OHM J
RV70	24011330	CHIP, 1/20W 33 OHM J
RV71	24011101	CHIP, 1/20W 100 OHM J
RV72	24871471	CHIP, 1/8W 470 OHM J
RV73	24011330	CHIP, 1/20W 33 OHM J
RV75	24872750	CHIP, 1/16W 75 OHM J
RV76	24872750	CHIP, 1/16W 75 OHM J
RV77	24872750	CHIP, 1/16W 75 OHM J
RV78	24011101	CHIP, 1/20W 100 OHM J
RV79	24871471	CHIP, 1/8W 470 OHM J

Location No.	Parts No.	Description
RV82	24011101	CHIP, 1/20W 100 OHM J
RV83	24366471	CARBON FILM, 1/6W 470 OHM J
RV84	24011101	CHIP, 1/20W 100 OHM J
RV85	24366471	CARBON FILM, 1/6W 470 OHM J
RV88	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RV101	24011101	CHIP, 1/20W 100 OHM J
RV103	24871271	CHIP, 1/8W 270 OHM J
RV111	24011101	CHIP, 1/20W 100 OHM J
RV113	24871271	CHIP, 1/8W 270 OHM J
RV123	24871271	CHIP, 1/8W 270 OHM J
RV124	24011101	CHIP, 1/20W 100 OHM J
RV210	24000824	CHIP JUMPER, 2125TYPE
RV211	24000824	CHIP JUMPER, 2125TYPE
RV212	24872750	CHIP, 1/16W 75 OHM J
RV213	24872750	CHIP, 1/16W 75 OHM J
RV214	24872750	CHIP, 1/16W 75 OHM J
RV215	24872750	CHIP, 1/16W 75 OHM J
RV216	24872151	CHIP, 1/16W 150 OHM J
RV217	24872151	CHIP, 1/16W 150 OHM J
RV218	24872750	CHIP, 1/16W 75 OHM J
RV219	24872750	CHIP, 1/16W 75 OHM J
RV220	24872750	CHIP, 1/16W 75 OHM J
RV229	24872750	CHIP, 1/16W 75 OHM J
RV231	24000445	CHIP JUMPER, 1608TYPE
RV232	24000445	CHIP JUMPER, 1608TYPE
RV233	24000445	CHIP JUMPER, 1608TYPE
RV234	24000824	CHIP JUMPER, 2125TYPE
RV235	24872750	CHIP, 1/16W 75 OHM J
RV236	24872750	CHIP, 1/16W 75 OHM J
RV237	24872750	CHIP, 1/16W 75 OHM J
RV238	24872151	CHIP, 1/16W 150 OHM J
RV239	24872151	CHIP, 1/16W 150 OHM J
RV240	24872750	CHIP, 1/16W 75 OHM J
RV241	24872750	CHIP, 1/16W 75 OHM J

COIL & TRANSFORMERS

L101	23248035	COIL, CHOKE, TLN3278D
L102	23289840	COIL, PEAKING, TRF4100AT
L103	23103828	INDUCTOR, BEAD, TEM2121M
L104	23103828	INDUCTOR, BEAD, TEM2121M
L105	23289840	COIL, PEAKING, TRF4100AT
L113	23238506	COIL, PEAKING, TRF4229AJ
L114	23238506	COIL, PEAKING, TRF4229AJ
L840	23280018	COIL, PEAKING, TRF4220AZ
L841	23103145	FERRITE CHOKE, TEM2011AA
L842	23248297	COIL, CHOKE, TLN3481GH
L843	23248297	COIL, CHOKE, TLN3481GH
L850	23103145	FERRITE CHOKE, TEM2011AA
L851	23103145	FERRITE CHOKE, TEM2011AA
L861	23103145	FERRITE CHOKE, TEM2011AA
L862	23103775	FERRITE CHOKE, TEM2014
L881	23103145	FERRITE CHOKE, TEM2011AA
L882	23103145	FERRITE CHOKE, TEM2011AA
L883	23103145	FERRITE CHOKE, TEM2011AA
L884	23103145	FERRITE CHOKE, TEM2011AA
L885	23103145	FERRITE CHOKE, TEM2011AA
L886	23103145	FERRITE CHOKE, TEM2011AA
L888	23248321	COIL, CHOKE, TLN3462AH
L890	23248292	COIL, CHOKE, TLN3499GH
L891	23248292	COIL, CHOKE, TLN3499GH
L892	23248292	COIL, CHOKE, TLN3499GH
L893	23248297	COIL, CHOKE, TLN3481GH
L8210	23280019	COIL, PEAKING, TRF4330AZ
L8211	23248358	COIL, CHOKE, TLN3540AH
L8213	23248297	COIL, CHOKE, TLN3481GH
L8921	23280019	COIL, PEAKING, TRF4330AZ
L8930	23280022	COIL, PEAKING, TRF4101AZ
L8931	23280022	COIL, PEAKING, TRF4101AZ
L8940	23280022	COIL, PEAKING, TRF4101AZ

Location No.	Parts No.	Description
L8941	23280022	COIL, PEAKING, TRF4101AZ
LC14	23103828	INDUCTOR, BEAD, TEM2121M
LC16	23103828	INDUCTOR, BEAD, TEM2121M
LC18	23103828	INDUCTOR, BEAD, TEM2121M
LC29	23103828	INDUCTOR, BEAD, TEM2121M
LC61	23103828	INDUCTOR, BEAD, TEM2121M
LC62	23103828	INDUCTOR, BEAD, TEM2121M
LC63	23103828	INDUCTOR, BEAD, TEM2121M
LC64	23103828	INDUCTOR, BEAD, TEM2121M
LC65	23103828	INDUCTOR, BEAD, TEM2121M
LC66	23103828	INDUCTOR, BEAD, TEM2121M
LC67	23103828	INDUCTOR, BEAD, TEM2121M
LC68	23103828	INDUCTOR, BEAD, TEM2121M
LC69	23103828	INDUCTOR, BEAD, TEM2121M
LC70	23238562	COIL, PEAKING, TRF4109AJ
LC71	23238562	COIL, PEAKING, TRF4109AJ
LV01	23289840	COIL, PEAKING, TRF4100AT
LV02	23277002	FERRITE CORE, COMON MODE, ACM3225-102-2PT100
LV03	23277002	FERRITE CORE, COMON MODE, ACM3225-102-2PT100
LV10	23277002	FERRITE CORE, COMON MODE, ACM3225-102-2PT100
LV11	23277002	FERRITE CORE, COMON MODE, ACM3225-102-2PT100
LV12	23277002	FERRITE CORE, COMON MODE, ACM3225-102-2PT100
LV13	23289840	COIL, PEAKING, TRF4100AT
LV43	23289840	COIL, PEAKING, TRF4100AT
LV44	23289840	COIL, PEAKING, TRF4100AT
⚠ T802	23211780	COIL, LINE FILTER, TRF3228AR
⚠ T803	23211780	COIL, LINE FILTER, TRF3228AR
⚠ T840	23217650	TRANSFORMER, CONVERTER, TPW3541AH
⚠ T844	23217631	TRANSFORMER, CHOKE 1.3MH2.5A TPW2054AH
⚠ T845	23217672	TRANSFORMER, CHOKE, TPW2059AL
⚠ T862	23217682	TRANSFORMER, CONVERTER, TPW3553AS

SEMICONDUCTORS

Q171	23205006	TRANSISTOR, KTC4075Y
Q271	23114499	TRANSISTOR, RN1404
Q272	23114499	TRANSISTOR, RN1404
Q273	23114493	TRANSISTOR, RN2404
Q274	23314993	TRANSISTOR, 2SC4081 Q
Q601	23009603	IC, AN7580
Q610	23205005	TRANSISTOR, KTA2014Y
Q611	23205204	TRANSISTOR, KTC2875B-RTK
Q612	23205204	TRANSISTOR, KTC2875B-RTK
Q613	23314993	TRANSISTOR, 2SC4081 Q
Q614	23114497	TRANSISTOR, RN1406
Q616	23314994	TRANSISTOR, 2SA1576A106
Q617	23906596	IC, BA4558
Q618	23906596	IC, BA4558
Q620	23314993	TRANSISTOR, 2SC4081 Q
Q651	23009942	IC, LA4525-E
Q652	23205204	TRANSISTOR, KTC2875B-RTK
Q653	23205204	TRANSISTOR, KTC2875B-RTK
Q691	23205246	TRANSISTOR, KRA104S(SOT-23)
Q692	23205204	TRANSISTOR, KTC2875B-RTK
Q693	23205204	TRANSISTOR, KTC2875B-RTK
Q801	23135037	IC, STR-F6268S
Q840	23135038	IC, MIP2900MPSCF
⚠ Q842	23009270	IC, PHOTO COUPLER, PS2581L1(D)
Q845	23314965	TRANSISTOR, KTC3198 Y
Q846	23314965	TRANSISTOR, KTC3198 Y
Q847	23314965	TRANSISTOR, KTC3198 Y
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q881	23000701	IC, NJM431L
Q4100	23205014	TRANSISTOR, 2SC4667-O
Q4101	23205014	TRANSISTOR, 2SC4667-O
Q4102	23314993	TRANSISTOR, 2SC4081 Q
Q4103	23314993	TRANSISTOR, 2SC4081 Q
Q4104	70114402	TRANSISTOR, 2SC3437-Y
Q4105	70114402	TRANSISTOR, 2SC3437-Y
Q4106	23205005	TRANSISTOR, KTA2014Y

Location No.	Parts No.	Description
Q4107	23205005	TRANSISTOR, KTA2014Y
Q8200	23085050	IC, SI-3120J(LF1101)
Q8210	23000806	IC, SI-8033SS
Q8220	23904163	IC, SI-3090CA
Q8230	23009188	IC, KIA7805API
Q8240	23009998	IC, BA00JC5WT-V5
Q8250	23000469	IC, PQ5EV3
Q8251	70200563	IC, PST9129
Q8901	23314965	TRANSISTOR, KTC3198 Y
Q8902	23314965	TRANSISTOR, KTC3198 Y
Q8904	23314962	TRANSISTOR, KTA1266 Y
Q8911	23314965	TR@† ISTOR, KTC3198 Y
Q8912	23314965	TRANSISTOR, KTC3198 Y
Q8930	23009998	IC, BA00JC5WT-V5
Q8940	23009998	IC, BA00JC5WT-V5
Q8950	23119747	IC, OPE AMP, TA75358P
QA91	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA92	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA93	23000283	IC, R1121N
QB42	23314994	TRANSISTOR, 2SA1576A106
QB43	23314993	TRANSISTOR, 2SC4081 Q
QB44	23314993	TRANSISTOR, 2SC4081 Q
QB81	23314204	TRANSISTOR, 2SC2412K,Q
QB83	70200849	IC, BA10393F
QB84	23314204	TRANSISTOR, 2SC2412K,Q
QF15	23314994	TRANSISTOR, 2SA1576A106
QF16	23314993	TRANSISTOR, 2SC4081 Q
QF17	23314994	TRANSISTOR, 2SA1576A106
QS01	23009916	IC, MM1631AJBE
QS02	23314993	TRANSISTOR, 2SC4081 Q
QS03	23314993	TRANSISTOR, 2SC4081 Q
QS04	23205116	TRANSISTOR, 2SC5343UF-Y(B
QS05	23205204	TRANSISTOR, KTC2875B-RTK
QS06	23205204	TRANSISTOR, KTC2875B-RTK
QS07	23205204	TRANSISTOR, KTC2875B-RTK
QS08	23205204	TRANSISTOR, KTC2875B-RTK
QS09	23205246	TRANSISTOR, KRA104S(SOT-23)
QS10	23318981	IC, MC14053BF
QS11	23205116	TRANSISTOR, 2SC5343UF-Y(B
QS12	23205204	TRANSISTOR, KTC2875B-RTK
QS13	23205204	TRANSISTOR, KTC2875B-RTK
QV01	23009952	IC, CXA2189Q
QV06	23314994	TRANSISTOR, 2SA1576A106
QV10	23314994	TRANSISTOR, 2SA1576A106
QV11	23314994	TRANSISTOR, 2SA1576A106
QV12	23314994	TRANSISTOR, 2SA1576A106
QV15	23009418	IC, MM1505XNRE
QV18	70128711	IC, BA7603F
QV19	23318981	IC, MC14053BF
QV20	23114501	TRANSISTOR, RN1402
QV61	23314994	TRANSISTOR, 2SA1576A106
QV62	23314994	TRANSISTOR, 2SA1576A106
QV63	23314994	TRANSISTOR, 2SA1576A106
QV71	23314163	TRANSISTOR, 2SA1162-Y
QV72	23314163	TRANSISTOR, 2SA1162-Y
D101	23316755	DIODE, ZENER, MTZJ33C
D102	23316571	DIODE, ZENER, MA8056-M
D272	23316231	DIODE, 1SS355
D603	23316231	DIODE, 1SS355
D604	23316231	DIODE, 1SS355
D605	23316231	DIODE, 1SS355
D606	23316231	DIODE, 1SS355
D607	23316231	DIODE, 1SS355
D608	23316231	DIODE, 1SS355
D609	23316231	DIODE, 1SS355
D611	23316231	DIODE, 1SS355
D612	23316231	DIODE, 1SS355
D613	23316231	DIODE, 1SS355
D614	23316231	DIODE, 1SS355

Location No.	Parts No.	Description
D615	23316231	DIODE, 1SS355
D616	23316231	DIODE, 1SS355
D617	23316231	DIODE, 1SS355
D618	23316231	DIODE, 1SS355
D619	23316231	DIODE, 1SS355
D620	23316231	DIODE, 1SS355
D622	23316231	DIODE, 1SS355
D623	23316231	DIODE, 1SS355
D628	23316597	DIODE, ZENER, MA8120-M
D651	23316231	DIODE, 1SS355
D652	23316231	DIODE, 1SS355
D653	23316231	DIODE, 1SS355
D654	23316231	DIODE, 1SS355
D655	23316591	DIODE, ZENER, MA8100-M
D801	23316393	DIODE, D5SB60, 4009 F05
D840	23357207	DIODE, LN1WBA60
D841	23118528	DIODE, ZENER, RD5.6ESA B3
D842	23118535	DIODE, ZENER, RD4.7ES
D843	23357366	DIODE, FR105-B5
D845	23118859	DIODE, 1SS133
D846	23118633	DIODE, ZENER, RD3.0ES B2
D847	23118633	DIODE, ZENER, RD3.0ES B2
D849	23118859	DIODE, 1SS133
D850	23316706	DIODE, RG4C
D851	23357355	DIODE, FMG-G3CS
D855	23316675	DIODE, ZENER, MTZJ6.2B
D861	23316672	DIODE, ZENER, MTZJ5.6B
D863	23118859	DIODE, 1SS133
D864	23357366	DIODE, FR105-B5
D865	23118859	DIODE, 1SS133
D866	23316381	DIODE, RU1P
D867	23316754	DIODE, ZENER, MTZJ33B
D868	23118623	DIODE, ZENER, RD10ES B1
D869	23118623	DIODE, ZENER, RD10ES B1
D883	23316184	DIODE, FML-G12S
D884	23357366	DIODE, FR105-B5
D885	23316184	DIODE, FML-G12S
D886	23357042	DIODE, FMX-12S(023-108)
D887	23316768	DIODE, FMB-26L
D888	23357353	DIODE, FML-G22S
D899	24000656	VARISTOR, TNR15G471K
D8210	23118213	DIODE, RK44,
D8211	23357258	DIODE, ZENER, DZ4.3 BS B
D8221	23316714	DIODE, RL2Z
D8222	23316714	DIODE, RL2Z
D8223	23316714	DIODE, RL2Z
D8902	23118859	DIODE, 1SS133
D8903	23118859	DIODE, 1SS133
D8911	23316673	DIODE, ZENER, MTZJ5.6C
D8914	23118859	DIODE, 1SS133
D8915	23118859	DIODE, 1SS133
D8950	23118528	DIODE, ZENER, RD5.6ESA B3
D8951	23118528	DIODE, ZENER, RD5.6ESA B3
DB40	23316231	DIODE, 1SS355
DB81	23358584	DIODE, LED, SML-811UTT86
DB82	23358585	LED, LAMP, SML-810MTT86
DMY02	24000445	CHIP JUMPER, 1608TYPE
DR70	23357037	DIODE, ZENER, UDZS5.6B
DR71	23357037	DIODE, ZENER, UDZS5.6B
DV03	23316571	DIODE, ZENER, MA8056-M
DV05	23316571	DIODE, ZENER, MA8056-M
DV09	23316571	DIODE, ZENER, MA8056-M
DV10	23316571	DIODE, ZENER, MA8056-M
DV15	23316571	DIODE, ZENER, MA8056-M
DV16	23357037	DIODE, ZENER, UDZS5.6B
DV17	23316571	DIODE, ZENER, MA8056-M
DV18	23316571	DIODE, ZENER, MA8056-M
DV19	23316571	DIODE, ZENER, MA8056-M
DV20	23357037	DIODE, ZENER, UDZS5.6B

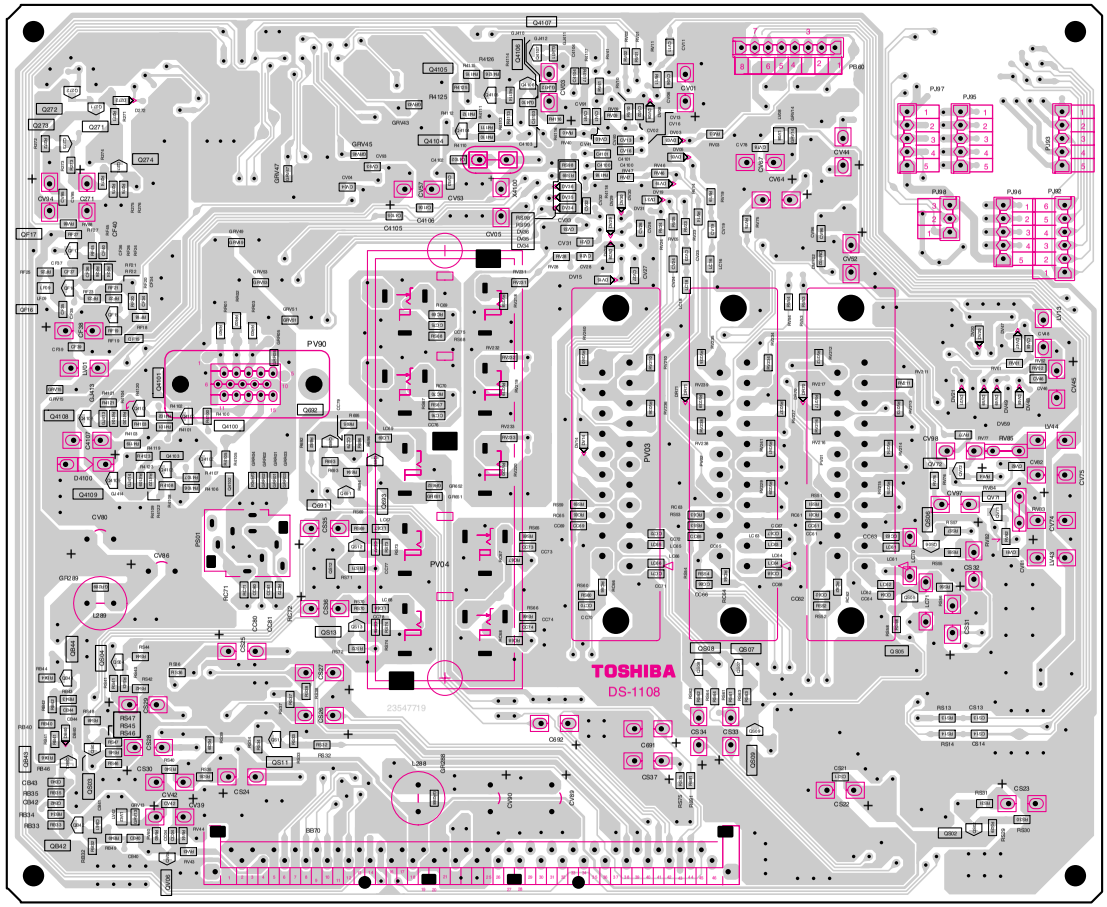
Location No.	Parts No.	Description
DV21	23357037	DIODE, ZENER, UDZS5.6B
DV24	23316571	DIODE, ZENER, MA8056-M
DV28	23316571	DIODE, ZENER, MA8056-M
DV29	23316571	DIODE, ZENER, MA8056-M
DV30	23316571	DIODE, ZENER, MA8056-M
DV31	23316571	DIODE, ZENER, MA8056-M
DV34	23316571	DIODE, ZENER, MA8056-M
DV35	23316571	DIODE, ZENER, MA8056-M
DV36	23316571	DIODE, ZENER, MA8056-M
DV47	23357037	DIODE, ZENER, UDZS5.6B
DV48	23357037	DIODE, ZENER, UDZS5.6B
DV49	23357037	DIODE, ZENER, UDZS5.6B
KB02	23009710	IC, REMOCON RECEIVER, GP1UE281RK
MISCELLANEOUS		
B112	23528410	HOLDER, TERM. COVER 46WM48P
B206	23974994	BAND, KESSOKU
B212	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
B234	23845856	WIRE CLAMP, POF COAT) L=70MM
B250	23940246	PIECE, TUNER COVER 46WM48P
BB10	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB11	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB20	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB21	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB70	23713309	PLUG , TAC-A46P-B1
BB71	23903159	SOCKET, TAC A46X B1 TAC-A46X-B1
D801B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D888B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D883B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D885B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D886B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D887B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
⚠ F801	23144654	FUSE, CARTRIDGE 5X20 250V 5.0A
F801A	23165433	FUSE HOLDER, 5.2 SOC
F899	23144650	FUSE, CARTRIDGE 5X20, 250V 2.0A
⚠ F899A	23165433	FUSE HOLDER, 5.2 SOC
GJ01	24000445	CHIP JUMPER, 1608TYPE
GJ02	24000445	CHIP JUMPER, 1608TYPE
GJ03	24000445	CHIP JUMPER, 1608TYPE
GJ04	24000445	CHIP JUMPER, 1608TYPE
GJ05	24000445	CHIP JUMPER, 1608TYPE
GJ413	24000445	CHIP JUMPER, 1608TYPE
GJ414	24000445	CHIP JUMPER, 1608TYPE
GR102	24000445	CHIP JUMPER, 1608TYPE
GR288	24000824	CHIP JUMPER, 2125TYPE
GR289	24000824	CHIP JUMPER, 2125TYPE
GR611	24000445	CHIP JUMPER, 1608TYPE
GR651	24000445	CHIP JUMPER, 1608TYPE
GR652	24000445	CHIP JUMPER, 1608TYPE
GR690	24000445	CHIP JUMPER, 1608TYPE
GR691	24000445	CHIP JUMPER, 1608TYPE
GRR01	24000445	CHIP JUMPER, 1608TYPE
GRR02	24000445	CHIP JUMPER, 1608TYPE
GRR03	24000445	CHIP JUMPER, 1608TYPE
GRR04	24000445	CHIP JUMPER, 1608TYPE
GRR05	24000445	CHIP JUMPER, 1608TYPE
GRV48	24000445	CHIP JUMPER, 1608TYPE
GRV49	24000445	CHIP JUMPER, 1608TYPE
GRV50	24000445	CHIP JUMPER, 1608TYPE
GRV51	24000445	CHIP JUMPER, 1608TYPE
GRV52	24000445	CHIP JUMPER, 1608TYPE
GRV53	24000445	CHIP JUMPER, 1608TYPE
JR001	24000445	CHIP JUMPER, 1608TYPE
JR002	24000445	CHIP JUMPER, 1608TYPE
JR003	24000445	CHIP JUMPER, 1608TYPE
JR004	24000445	CHIP JUMPER, 1608TYPE
JR005	24000445	CHIP JUMPER, 1608TYPE
JR006	24000445	CHIP JUMPER, 1608TYPE
JR007	24000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
JR008	24000445	CHIP JUMPER, 1608TYPE
JR009	24000445	CHIP JUMPER, 1608TYPE
JR010	24000445	CHIP JUMPER, 1608TYPE
JR011	24000445	CHIP JUMPER, 1608TYPE
JR012	24000445	CHIP JUMPER, 1608TYPE
JR013	24000445	CHIP JUMPER, 1608TYPE
JR014	24000445	CHIP JUMPER, 1608TYPE
M805A	23103839	FERRITE CORE, TFE1012
M811A	23103778	FERRITE CORE, TFE1008
M905A	23103778	FERRITE CORE, TFE1008
M905E	23103840	FERRITE CORE, TFE1013
MA01	23389249	CABLE, FFC P1.25-15-150 P1.25-15-150
MB91A	23103840	FERRITE CORE, TFE1013
MV01	23368868	CABLE, LVDS 300MM
MV01A	23103840	FERRITE CORE, TFE1013
MV05	23389250	CABLE, FFC P1.0-35-320 P1.0-35-320
MX18	23389251	CABLE, FFC 0.5 40P L581 FFC 0.5 40P L581
P605A	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
P661	23363607	JACK, HEAD PHONE, 3.5MM
P800	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
⚠ P801	23372052	POWER CORD, 250V2.5A
	23372151	POWER CORD, AC250V3A L/FUSE13A GB13F1 FUSE13A
P805	23164965	CONNECTOR, PLUG 4P, W-P3504-#02
P811A	23368274	PLUG, 2P 3.96MM VH-JST VH
P891	23367068	CONNECTOR, PLUG 8P, 2.5MM G JST-EH B8B-EH-F1-TV4
P892	23367073	CONNECTOR, PLUG 13P
P901	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P902A	23164563	CONNECTOR, PLUG 3P
P903	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
P906	23367070	PLUG , NP 2.5MM G JST-EH B10B-EH-F1A
P907	23367072	PLUG, NP 2.5MM G JST-EH, B12B-EH-F1A
PA01	23713240	CONNECTOR, 15FE-BT-VK-N JST 15FE-BT-VK-N
PB60	23368587	CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH
PJ17B	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
PJ92	23368580	CONNECTOR, PLUG 6P, 2.5MM G JST-EH B6B-EH-F1-TV4
PJ93	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ94	23713176	CONNECTOR, FMN-BMTTN-A-TFT FMN-BMTTN-A-TFT
PJ95	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ96	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ97	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ98	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PS01	23365432	EARPHONE JACK
PV01	23902604	SOCKET
PV02	23902604	SOCKET
PV03	23902604	SOCKET
PV04	23023276	JACK, PIN 10P SMK PIN JACK 10P
PV05	23713393	CONNECTOR, 35FMN SIDETYPE JST 35FMN-SMT-A-TF
PV15B	23368587	CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH
PV90	23713583	CONNECTOR, D-SUB 15P 1470655-2
Q820B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q821B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q822B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q823B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q824B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q825B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q893B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q894B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
⚠ S810	70145484	SWITCH, SPVF11
SK01	23405384	OPTICAL ENGINE, PJ-TB25-46S PJ-TB25-46S
SK02	23587201	SERVICE KIT, SHP66 LAMP UNIT
SK03	23122468	P0WER UNIT, RPB-4434ZA RPB-4434ZA
SK04	23762354	PC BOARD ASSY, SENSOR UNIT PD1823 SENSOR UNIT
SK05	23762355	PC BOARD ASSY, MOTOR UNIT PD1824 MTR UNIT
SK06	23125920	FAN, D09A-12PS6 01B(K)
SK07	23125919	FAN, D07F-12SS18 01B(EX)
SK08	23144199	BREAKER, US-603UXTLQE-H US-603UXTLQE-H
⚠ SR81	23146574	RELAY, DLS5D1-O(M) 0.15W
⚠ SR82	23146564	RELAY, DC12V, TV5, DG-3
W661	23351244	SPEAKER, SPBOX(L) 8-OHM 20W SPK-1455AM

Location No.	Parts No.	Description
W662	23351245	SPEAKER, SPBOX(R) 8-OHM 20W SPK-1456AM
X4100	23153742	CRYSTAL
Z800	23103839	FERRITE CORE, TFE1012
	23103839	FERRITE CORE, TFE1012
⚠ Z831	23144603	PROTECTOR, PRT SERIES, DC60V/AC90V 1000MA
⚠ Z860	23144479	PROTECTOR, 125V 4.0A
⚠ Z880	23144194	PROTECTOR, 20PSERIES 125V 4A
⚠ Z881	23144183	PROTECTOR, 20PSERIES 125V 500MA
⚠ Z882	23144194	PROTECTOR, 20PSERIES 125V 4A
⚠ Z883	23144195	PROTECTOR, 20PSERIES 125V 5A
⚠ Z884	23144195	PROTECTOR, 20PSERIES 125V 5A
⚠ Z885	23144195	PROTECTOR, 20PSERIES 125V 5A
⚠ Z8210	23144189	PROTECTOR, 20PSERIES 125V 2A
ZB22B	23103840	FERRITE CORE, TFE1013
PC BOARD ASSEMBLIES		
✻ U101	23762780	PC BOARD ASSY, IF AUD ACIN PU PD1954A
✻ U802	23762781	PC BOARD ASSY, POWER PU PD1955A1
✻ UA02	23762782	PC BOARD ASSY, REMORT SENS PU PD1955A2
✻ UA03	23762783	PC BOARD ASSY, DOOR SW PU PD1955A3
✻ UA06	23762786	PC BOARD ASSY, FRONT KEY PU PD1503B
✻ UD02	23148139	OPSS SCALER 46WM48P, B910PD1962A1
✻ UV01	23762784	PC BOARD ASSY, BACK AV PU PD1956A1
✻ UV03	23762785	PC BOARD ASSY, FRONT AV PU PD1956A2
TUNER		
H001	23321449	TUNER, HYP.EMULT ICPL D-J ALPS TEDE9-243A
H002	23148138	IF MODULE, EURO IMA MSP3410G MVGS52
ACCESSORIES		
A701	23067891	CARTON, TOP CASE 46WM48P
A702	23946863	PACKING, BOTTOM PACKING 46WM48P
A703	23946862	PACKING, TOP PACKING 46WM48P
A704	23067892	CARTON, BOTTOM TRAY 46WM48P
A710	23918393	CARTON, SUPPORT POST 46WM48P
A726	23974753	POLYPROPYLENE BAND
⚠ K902	23306469	REMOCON HAND UNIT, CT-90126
	23306469	REMOCON HAND UNIT, CT-90126
⚠ Y101A	23566517	OWNERS MANUAL, ENGLISH MANUAL ENG 46WM48P
⚠ Y101E	23566518	OWNERS MANUAL, EURO MANUAL EUR 46WM48P
Y102	23589663	SHEET, QSUG 46WM48P QSUG
CABINET PARTS		
⚠ A025	23533145	COVER, LAMP TUNNEL PURCHASE 46WM48P
⚠ A026	23428357	DOOR, DOOR LAMP PURCHASE ASSY 46WM48P
⚠ A101	23533140	COVER, BASE ASSY KIT 46WM48P
⚠ A201	23532777	COVER, BEZEL,PURCHASE ASSEY 46HM84
A204	23532764	COVER, BACK COVER 46HM84
⚠ A205	23532783	COVER, BACKCOVER PURCHASE ASSY 46HM84
A215	23940281	PIECE, ENCLOSURE PROPER KIT 46WM48P
A220	23451976	PUSH CATCH, CLICK
⚠ A222	23532770	COVER, PEDESTAL PURCHASE ASSY
A225	23940084	PIECE, STRIKER
A227	23940287	PIECE, PIECE TRIM TOUCH PAD 46WM48P
⚠ A271	23405422	OPTICAL ENGINE, PJ-TB25-46EU PJ-TB25-46EU
A278	23084267	BRACKET, SPEED CLIP
A305	23717197	SCREW, THUMB SCREW 52HM84
A306	23717198	SCREW, THUMB SCREW RETAINER 52HM84
A333	23079202	AV MOUNT PURCHASE, 46WM48P
⚠ A401	23532768	COVER, REAR COVER PURCHASE ASY
A421	23532738	COVER, REAR COVER,DLE
A422	23084265	BRACKET, VENT, REAR DLE
A516	23717192	SCREW, SCREW, AV BOARD
K501	23311074	SCREEN, 46K4M LENTICULAR SHEET SCREEN46K4ML
K502	23311075	SCREEN, 46K4M FRESNEL SHEET SCREEN46K4MF
K601	23405382	MIRROR, 46C4M3 1047/503*536*3

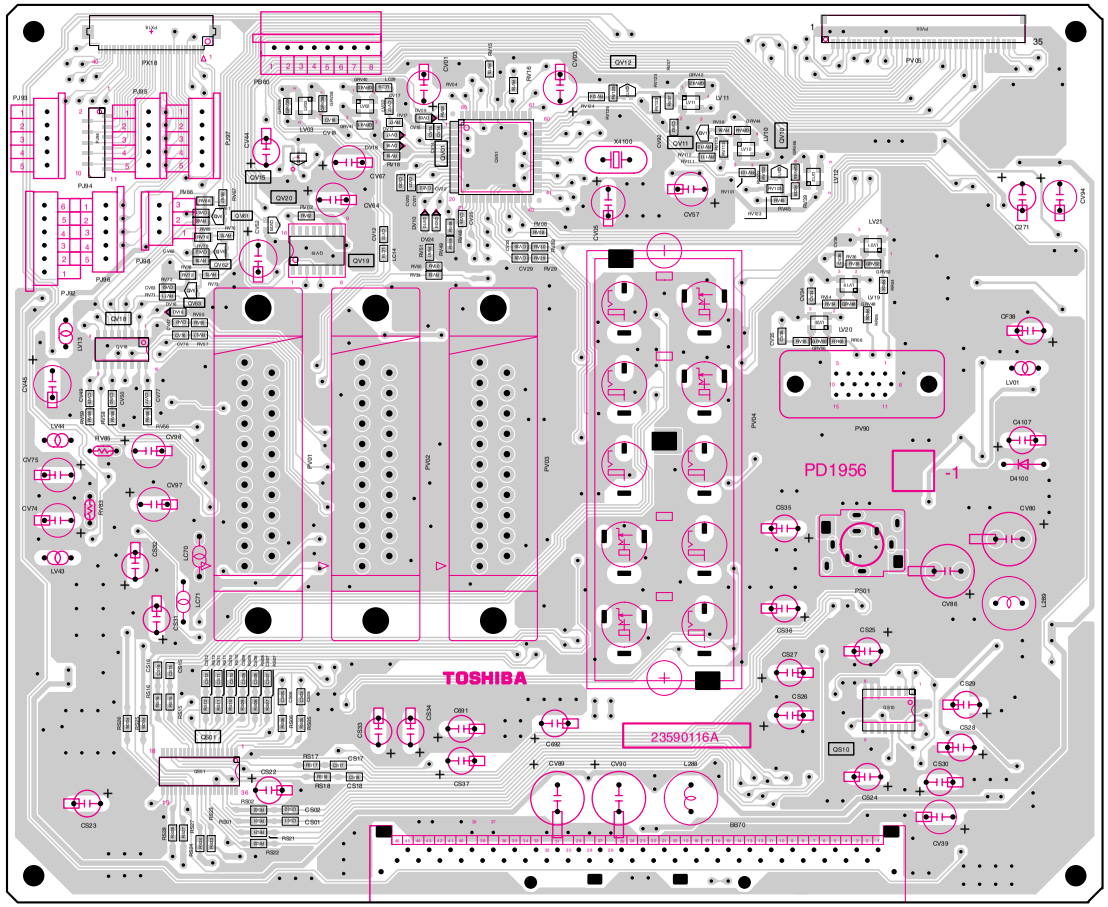
BACK AV BOARD PD1956A1 (UV01)

BOTTOM (FOIL) SIDE



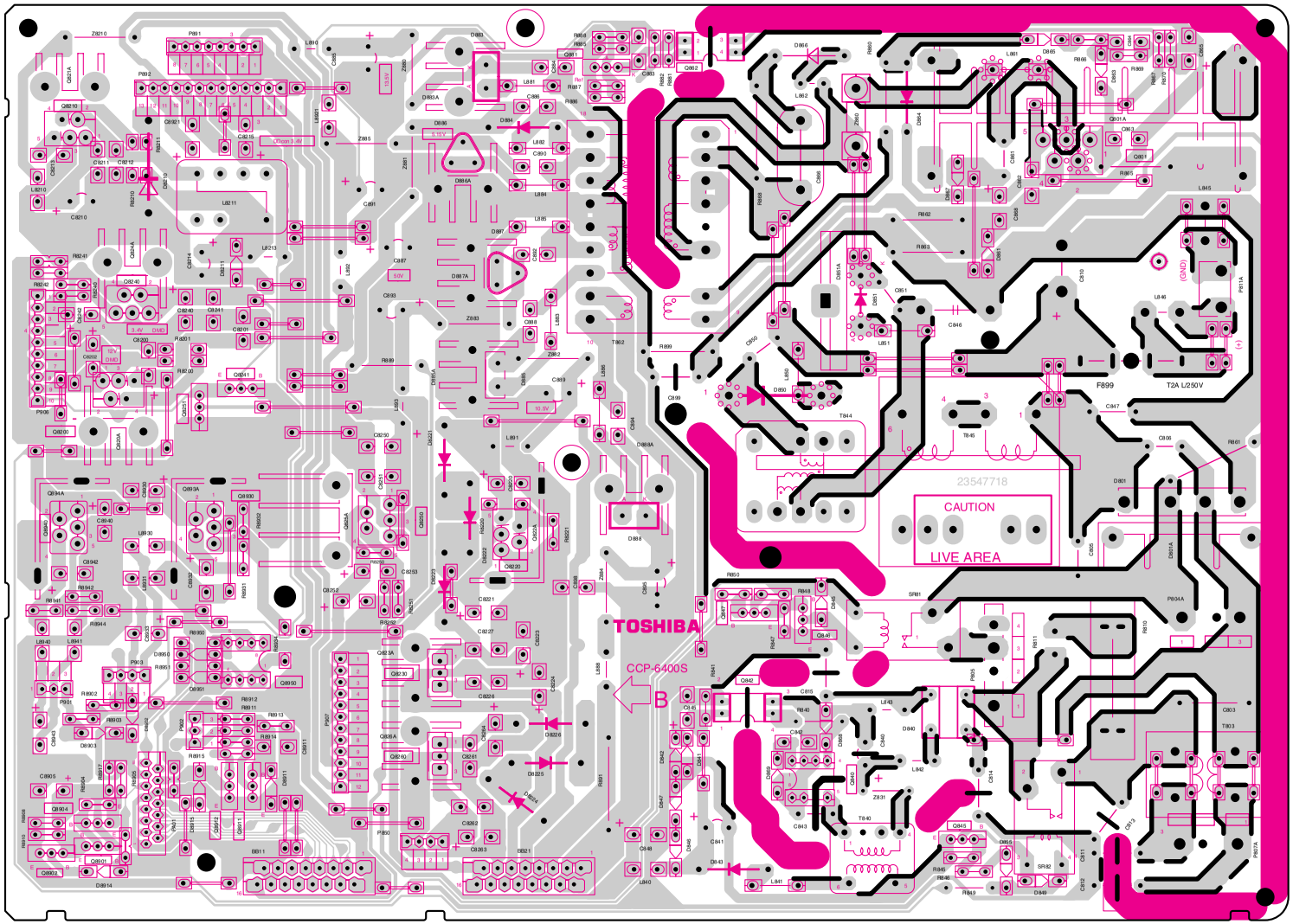
BACK AV BOARD PD1956A1 (UV01)

TOP (COMPONENT) SIDE



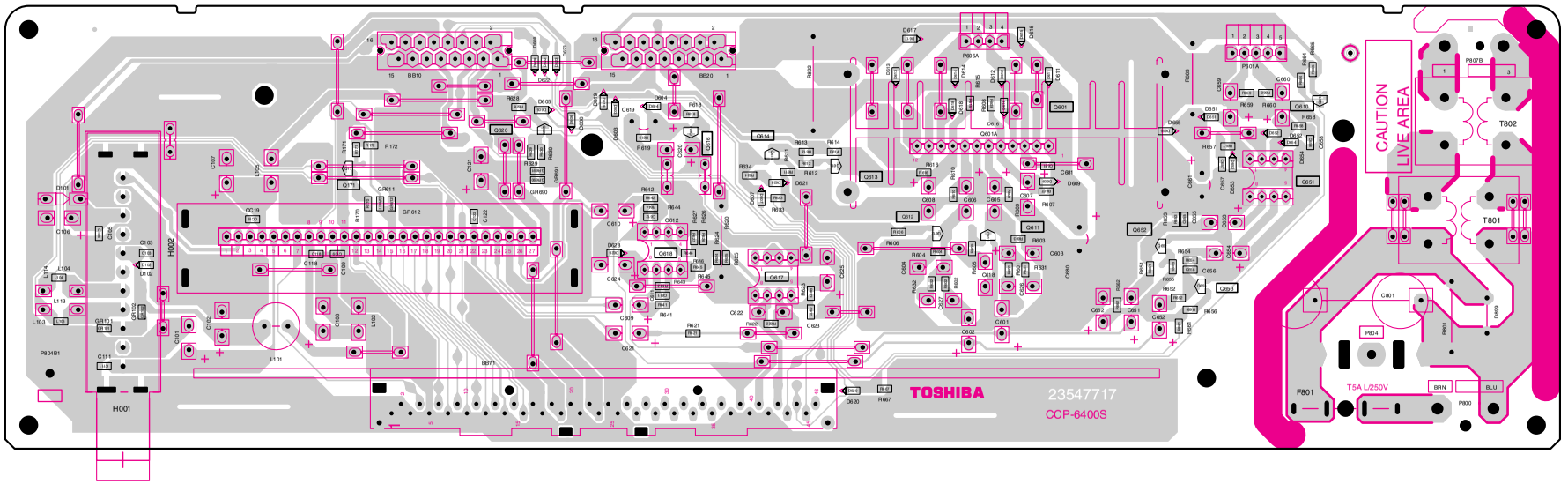
MAIN POWER BOARD PD1955A1 (U802)

BOTTOM (FOIL) SIDE



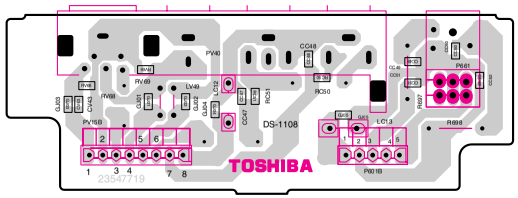
IF AUDIO BOARD PD1954A (U101)

BOTTOM (FOIL) SIDE



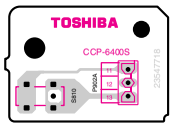
FRONT-AV BOARD PD1956A2 (UV03)

BOTTOM (FOIL) SIDE



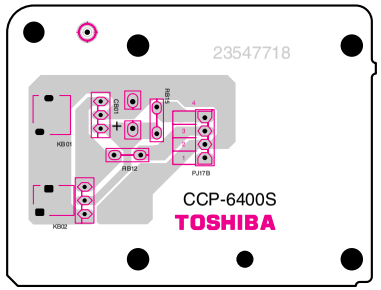
DOOR SWITCH BOARD PD1955A3 (UA03)

BOTTOM (FOIL) SIDE



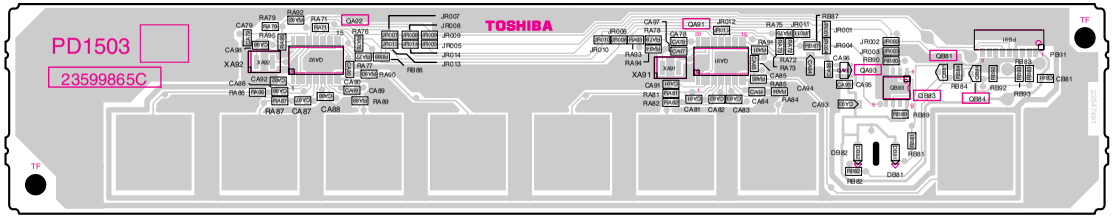
REMOTE SENSOR BOARD PD1955A2 (UA02)

BOTTOM (FOIL) SIDE



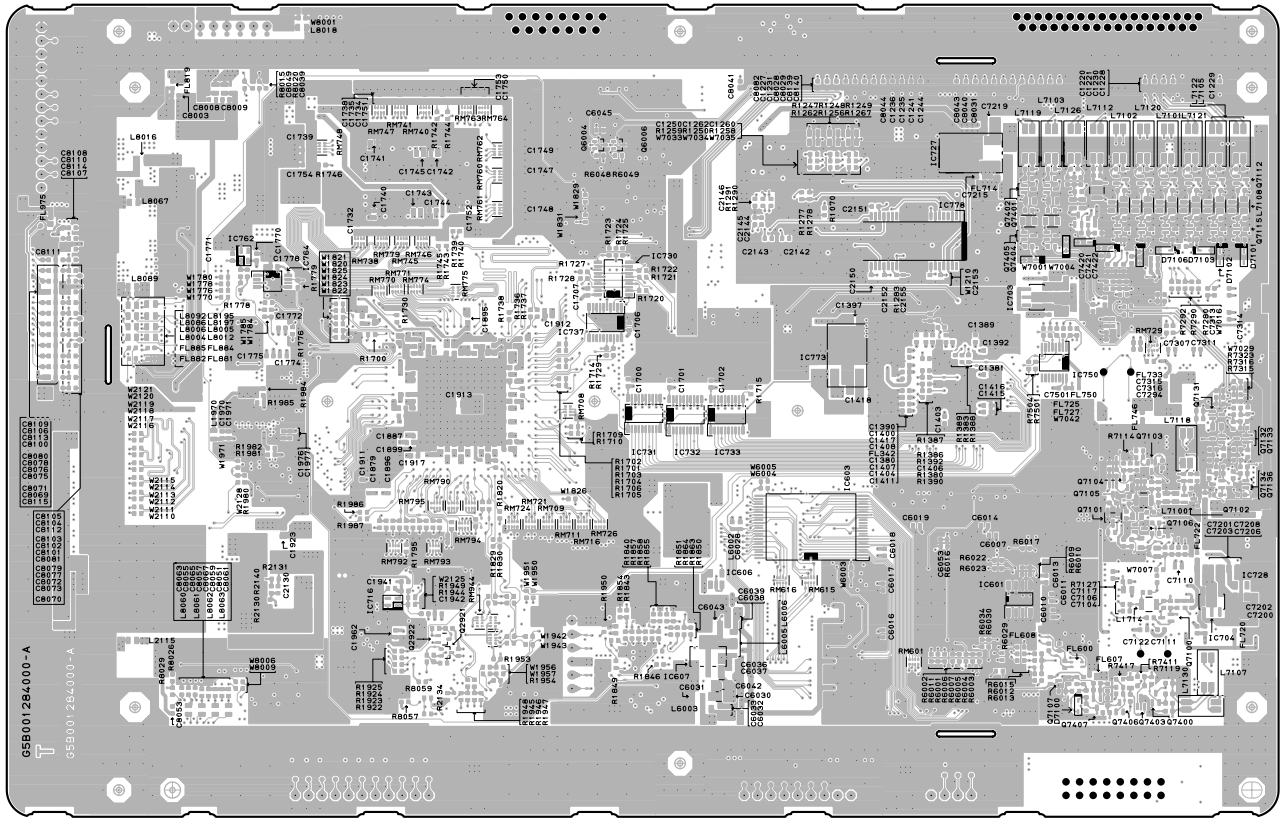
FRONT KEY BOARD PD1503B (UA06)

TOP (COMPONENT) SIDE



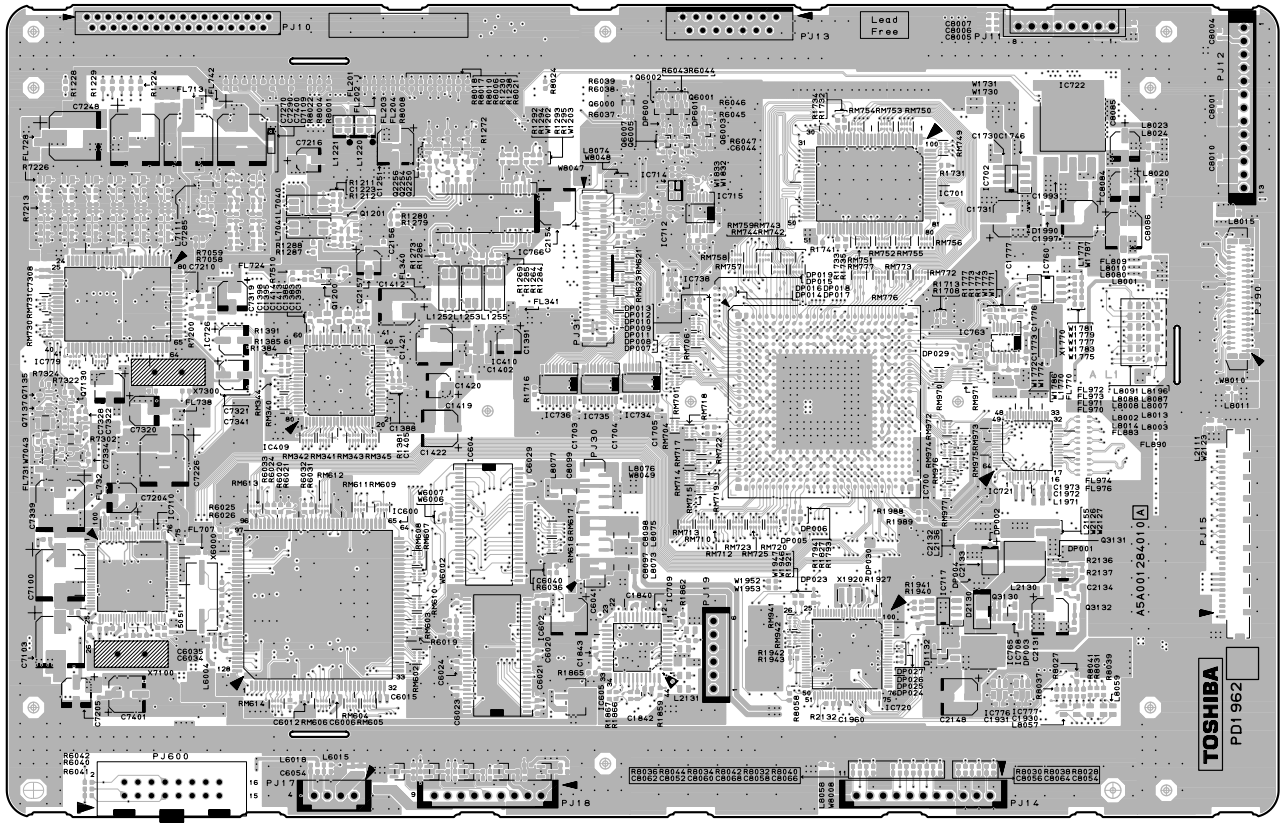
OPSS SCALER BOARD PD1962A1 (UD02)

BOTTOM (FOIL) SIDE



OPSS SCALER BOARD PD1962A1 (UD02)

TOP (COMPONENT) SIDE



SCHEMATIC DIAGRAM

MODEL : 46WM48P

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   —|(+)|— Electolytic capacitor —|(M)|— Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

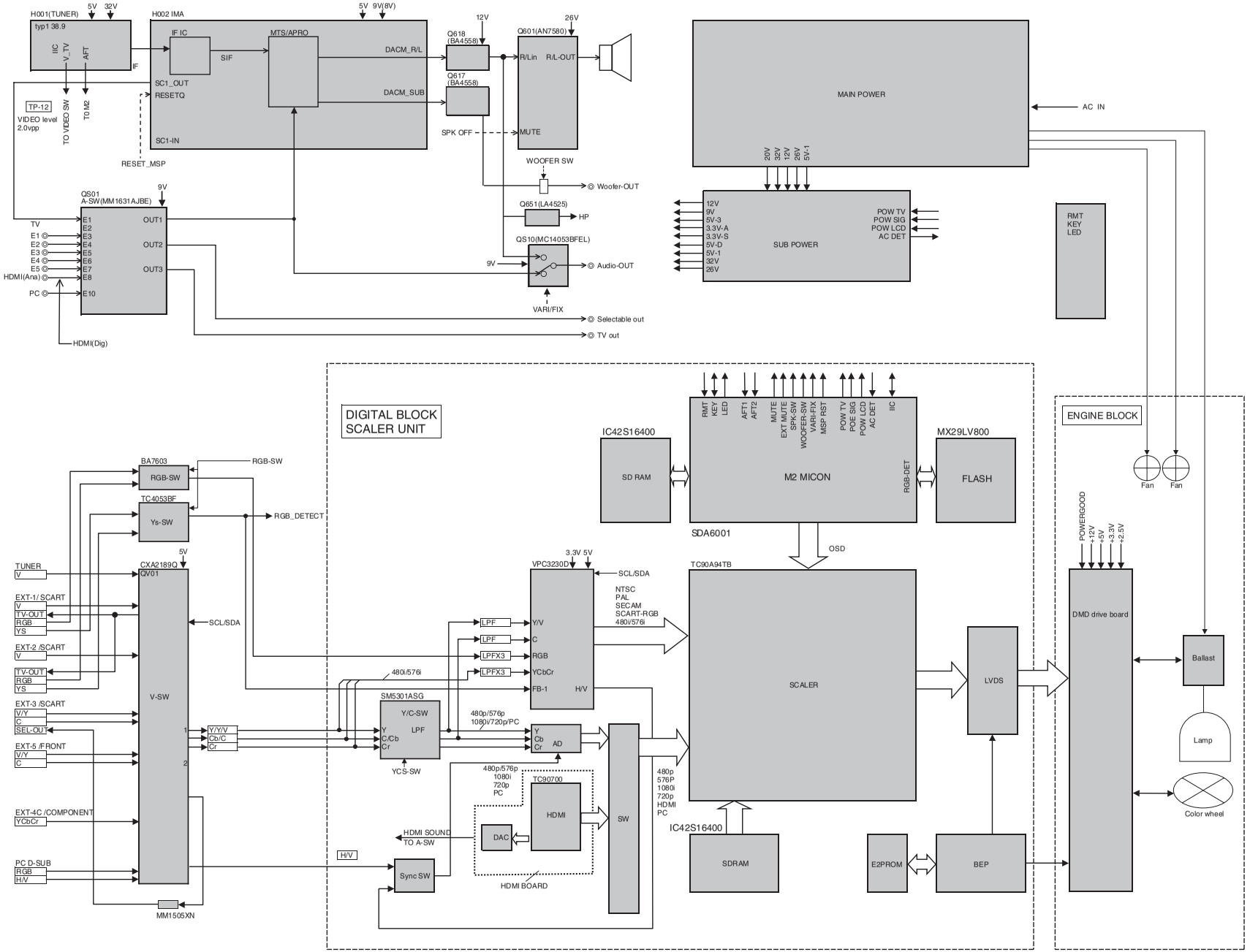
BACK_AV
- (1/6) [SHEET-1/6] 1/57
- (2/6) [SHEET-2/6] 2/57
- (3/6) [SHEET-3/6] 3/57
- (4/6) [SHEET-4/6] 4/57
- (5/6) [SHEET-5/6] 5/57
- (6/6) [SHEET-6/6] 6/57

CONNECT__1.eps 7/57
F-AV_1.eps 8/57
FRONT-KEY_1.eps 9/57
IF_AUDIO_AC in
- (1/4) [SHEET-1/4] 10/57
- (2/4) [SHEET-2/4] 11/57
- (3/4) [SHEET-3/4] 12/57
- (4/4) [SHEET-4/4] 13/57

POWER
- (1/2) [SHEET-1/2] 14/57
- (1/2) [SHEET-2/2] 15/57

REM_SW_1.eps 16/57
SCALER
- DIGITAL INPUT [SHEET-001] 17/57
- CAPTURE INPUT [SHEET-002] 18/57
- MEMORY CONNECTION [SHEET-003] 19/57
- PLL [SHEET-004] 20/57
- OSD for North America [SHEET-005] 21/57
- IIC [SHEET-006] 22/57
- PLD [SHEET-007] 23/57
- POWER [SHEET-008] 24/57
- SUB MICON (1/3) [SHEET-009] 25/57
- SUB MICON (2/3) [SHEET-010] 26/57
- SUB MICON (3/3) [SHEET-011] 27/57
- LVDS OUT [SHEET-012] 28/57
- Power Connector and Dimming [SHEET-013] 29/57
- LVDS OUT (SHARP LCD) [SHEET-015] 30/57
- 3chADC2_LPF [SHEET-017] 31/57
- 3chADC1 [SHEET-018] 32/57
- DC/DC CONVERTER [SHEET-019] 33/57
- M2
  - (1/6) [SHEET-020] 34/57
  - (2/6) [SHEET-021] 35/57
  - (3/6) [SHEET-022] 36/57
  - (4/6) [SHEET-023] 37/57
  - (5/6) [SHEET-024] 38/57
- FUNCTION (1/8) [SHEET-025] 39/57
- M2 (6/6) [SHEET-027] 40/57
- SYNC_SW [SHEET-028] 41/57
- CONNECTOR [SHEET-050] 42/57
- POWER_CONNECTOR [SHEET-051] 43/57
- SERVICE CONNECTOR [SHEET-053] 44/57
- HDMI I/F [SHEET-054] 45/57
- 3DYCS-1 [SHEET-701] 46/57
- 3DYCS-REG [SHEET-702] 47/57
- FUNCTION
  - (2/8) [SHEET-703] 48/57
  - (3/8) [SHEET-704] 49/57
  - (4/8) [SHEET-705] 50/57
  - (5/8) [SHEET-706] 51/57
  - (6/8) [SHEET-707] 52/57
  - (7/8) [SHEET-708] 53/57
  - (8/8) [SHEET-709] 54/57
- TV MICON CONNECTOR (1) [SHEET-801] 55/57
- CONNECTOR (TV MICON-POWER BOARD) [SHEET-802] 56/57
- CONNECTOR (DLE I/F) [SHEET-803] 57/57

CIRCUIT BLOCK DIAGRAM



SPECIFICATIONS

Broadcast systems/channels

PAL-I	UHF	UK21-UK69
PAL-B/G	UHF	E21-E69
	VHF	E2-E12, S1-S41
SECAM-L	UHF	F21-F69
	VHF	F1-F10, B-Q
SECAM-D/K	UHF	R21-R69
	VHF	R1-R12

Video Input PAL, SECAM, NTSC 3.58/4.43

External connections

EXT1	Input	21-pin SCART	RGB, A/V
EXT2	Input	21-pin SCART	RGB, A/V
EXT3	Input/Output	21-pin SCART	A/V, S-video Selectable output
EXT4	Input	Phono jacks	Y, P_B/C_B, P_R/C_R High definition 1080i Progressive scan
		Phono jacks	A/V
EXT5	Input (Side)	4 pin	S-video
		Phono jack	Video
		Phono jacks	Audio L + R
HDMI™	Input	HDMI connector	Digital television signal
PC	Input	Mini D-sub 15-pin	Analog RGB signal
	Input	3.5mm stereo jack	Audio
Audio Output Fixed/Variable		Phono jacks	Audio L + R
Output to Active Super Woofer		Phono socket	

Programme Positions 100

Stereo Nicam
2 carrier system

Visible Screen Size 46WM 46ins
(approx.) 52WM 52ins

Display 16:9

Sound output (at 10% distortion) Main 20W + 20W

Power consumption 46WM 195W
as specified in EN60107-1 : 1997 52WM 195W

Standby 46WM 2W
52WM 2W

Dimensions 46WM 81cm (H) 135cm (W) 39cm (D)
(approx.) 52WM 89cm (H) 149cm (W) 39cm (D)

Weight (approx.) 46WM 35kg
52WM 38kg

Headphone socket 3.5mm stereo

Accessories Remote control
2 batteries
(UM-4, AAA, IEC R03 1.5V)
Clip

– END –

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN